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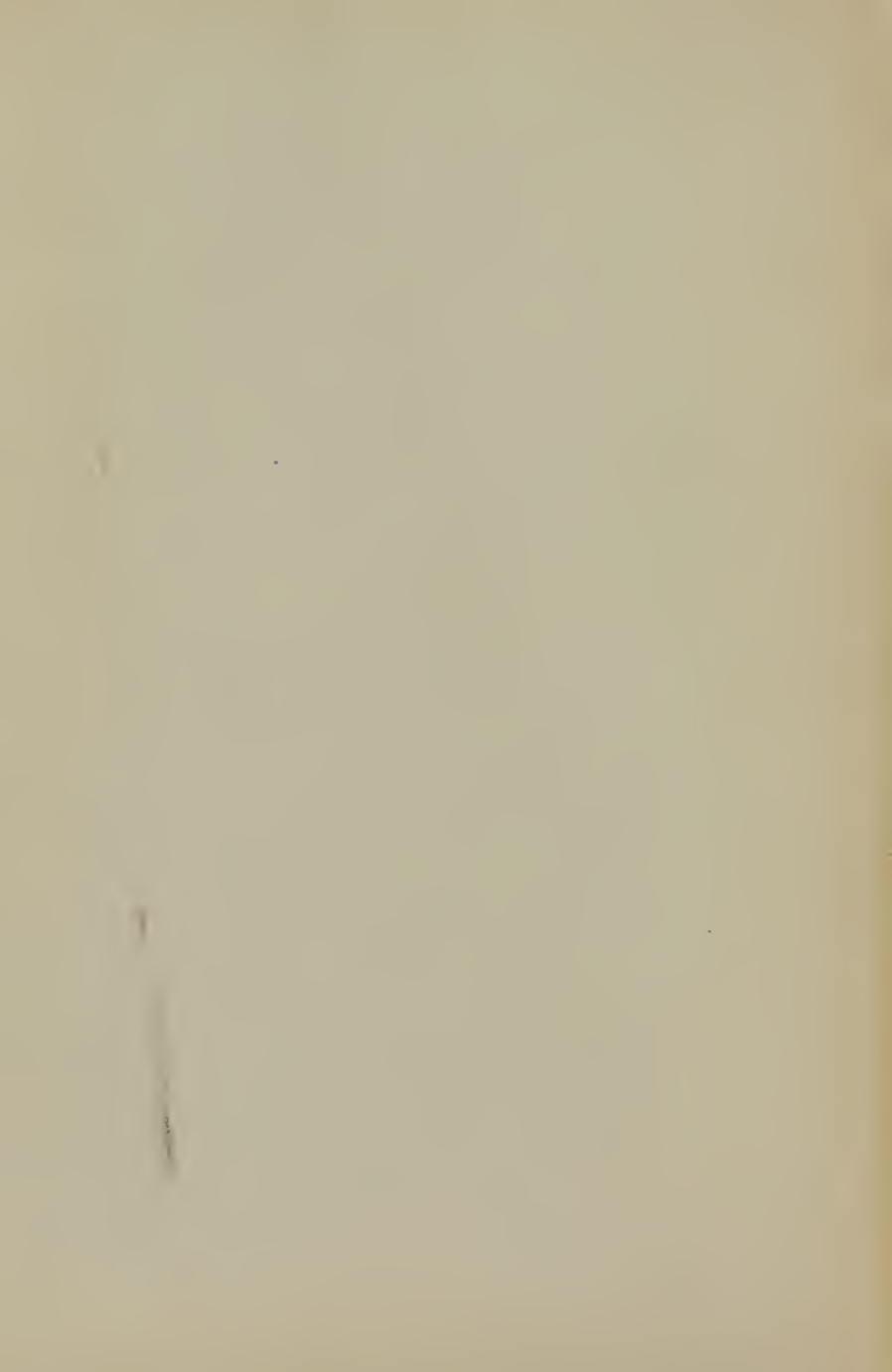
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HANDBOOK

OF

DERMATOLOGY

FOR THE USE OF STUDENTS.

BY

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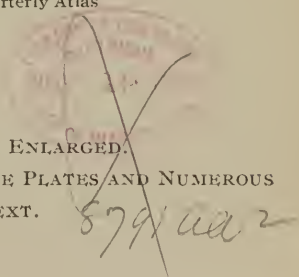
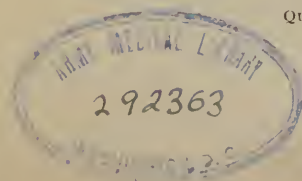
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INSCRIBED
TO
MY MOTHER
AS A TRIBUTE
OF
ESTEEM AND AFFECTION.
THE AUTHOR.

PREFACE TO SECOND EDITION.

In presenting this edition to the consideration of those who desire an insight into the vast field which dermatology offers, no attempt has been made to give a complete manual of the subject. A mere outline of dermatology has been roughly sketched, sufficient to enable the careful reader to grasp enough so as to induce him to pursue the subject further with a somewhat fuller understanding of the various points involved. It is for this reason that pathology has been barely hinted at, as it is so vast a subject that entire works are devoted to the histopathology of skin diseases alone. In order to render this little volume of practical utility, treatment has been made somewhat prominent without rendering it complex. The illustrations given, as well as the plates, are from the author's collection, with the possible exception of a few anatomical diagrams, for which he acknowledges his indebtedness to the admirable drawings of various authors. The writer is under obligations for many valuable hints and much useful information to the leading authorities in dermatology. Foot-notes and references have been omitted, so as not to render the book too cumbersome, but it is hoped that this general acknowledgement will be taken by all in the same spirit in which it is made.

I also desire to tender my thanks to Mr. John A. Hazenstab, of this city, for the practical assistance received from him in the photographic work which appears in this volume.

A restricted formulary has been added, as well as a selected bibliography, both of which may prove useful. Being designed as a syllabus of the lectures delivered during a winter term it is the earnest hope of the author that it may prove not only useful to his students during their college days, but may also prove profitable to them at times when engaged in the more serious business of active practice. That it may meet with the approval of his colleagues as well is the sincere wish of

THE AUTHOR.

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HANDBOOK OF DERMATOLOGY.

THE SKIN.

The Skin, or common integument, is the covering which nature has provided as an envelope to the body. It is an organ which, whilst of considerable extent, is also, to a certain degree, complex in its structure. Intended primarily as a protection to the tissues underlying it, it serves also to perform a number of important functions. It has a soft, unctuous feel, rather smooth as a rule, certain localities, however, appearing uneven to the touch; it rolls more or less easily under the fingers and is quite elastic. It varies in thickness in different parts of the body, and also varies considerably in color in different individuals. The color may be a pale yellowish-pink, or it may have almost any one of a number of shades, varying from the one indicated to black. Thus we have the coppery hue of the North American Indian, the yellow cast of the Mongolian, the brown of the Polynesian, etc. In the same individual, certain parts are found to be more deeply pigmented than the general surface, viz., the nipple, the perineum, the scrotum, etc.

The thickness of the skin varies in different parts of the body as well as in different individuals. It is, in general, thicker in men than in women, and in adults than in children. It is thinnest on the eyelids and prepuce, and here it varies from 1 mm. (1-25 in.) to 3 mm. (3-25 in.). On the back, buttocks, palms of the hands and soles of the feet it is thickest, and measures from 4.5 mm. (1-6 in.) to 7 mm. (1-4 in.) in thickness. This is merely an approximation, as no two measurements are exactly alike, and different competent authorities differ in the results which they have found, and this variation is one which may be easily verified.

The appendages of the skin are those portions which, while strictly not essential to it, are still found in connection with it. They are the hair and the nails, whose functions are purely protective. Besides these, we find that the skin is provided with small organs which play no inconsiderable part in its anatomy and physiology, and they may be briefly summarized as the coil (sweat) glands, the sebaceous glands and the muscles, to which may be added the nerves, the arteries, the veins and the lymphatics.

Upon taking a careful view of the appearance presented by the skin, to the naked eye, it will be noticed that its surface is crossed by a large number of furrows, some of which are very fine and others quite coarse, and the coarser the furrows the deeper.

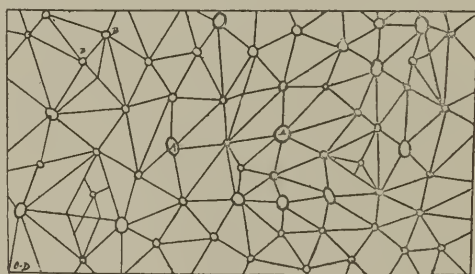


Fig. 1.—Cutaneous Furrows.

A, Opening of Hair-Follicle. B, Sweat Pore.

It will also be found that the coarse furrows are more or less in parallel groups and situated at the flexures of joints, thus acting as compensating media, by furnishing the increased amount of integumentary surface required for the movements of flexion and extension. The finer furrows are distributed over the entire surface of the skin and form a network of triangles; and these, in turn, form a series of polygonal figures (Fig. 1). Where these lines intersect, there will be found a small hole, the opening of a coil gland, or of a sebaceous gland, or of a hair follicle with its hair protruding. Hairs cannot be found except at these intersections. There are comparatively very few intersections where this rule does not hold good. Where sebaceous glands and hair follicles are absent, as on the palms of the hands and soles of the feet, there is a tendency for the furrows to arrange themselves in concentric curved elevations, which are crossed and intersected by large furrows. The concentric elevations are well-marked and contain the openings of the ducts of coil glands.

Lying directly underneath the skin, there is found the subcutaneous connective tissue and adipose tissue, which vary in quantity in different portions of the body, and serve to give the rounded appearance observed in the limbs and body. They also aid as protectors of the underlying tissues and permit the integument to be freely moved.

The functions of the skin may be stated, in general terms, to be the regulation of the body temperature, the protection of the finer tissues and the excretion of certain waste products. To this may be added the elaboration of certain secretions necessary for its own better maintenance. Besides this, absorption and respiration are also exercised, to a certain degree.



Fig. 2.—Diagrammatic Vertical Section of the Skin.

A, Stratum corneum; B, Stratum lucidum; C, Stratum granulosum; D, Stratum mucosum; E, Stratum pigmentosum; F, Stratum papillare; G, Sebaceous gland; H, Hair; I, Subcutaneous connective tissue; K, Pacinian corpuscle; L, Tactile corpuscle; M, Vascular papillary loop; N, Coil gland; O, Arrector pili muscle.

ANATOMY.

The skin is composed of two principal portions—the epidermis and the corium; while, underlying it, is the subcutaneous connective tissue and fat.



Fig. 3.—Section of Skin of Scalp.

The Epidermis may be divided into five layers, as follows: Stratum corneum, stratum lucidum, stratum granulosum, stratum mucosum, and stratum pigmentosum.

THE STRATUM CORNEUM, or horny layer, is the uppermost, composed of flat polygonal epithelial cells showing nuclei faintly, here and there. As we go deeper down they appear less dry, and show a certain relationship to the cells of the stratum mucosum. In the negro some pigment granules are irregularly scattered through this layer. The thickness of this layer varies in different parts, being most pronounced in the palms and soles.

THE STRATUM LUCIDUM (Oehl's layer) lies immediately beneath the horny layer, and consists of two or three rows of transversely disposed epithelial cells which appear glistening.

Under the microscope it appears glistening, this being due to the presence of eleidin in the cells. This layer is comparatively thin.

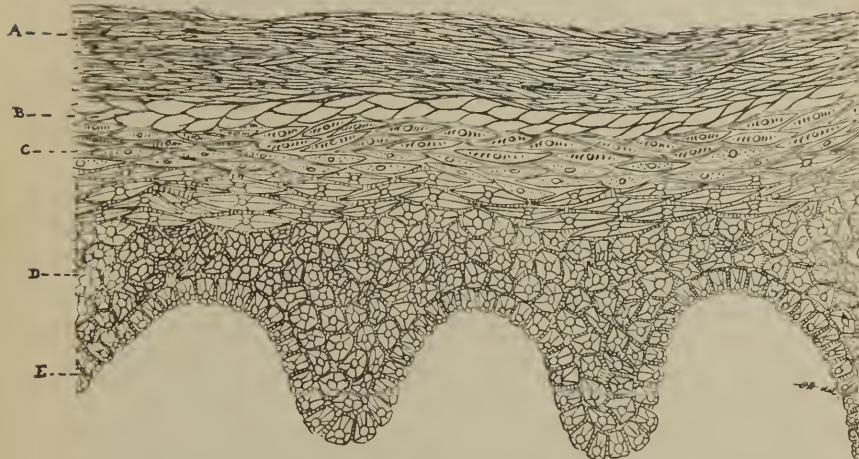


Fig. 4.—Diagrammatic Vertical Section of the Epidermis.

A, Stratum corneum; B, Stratum lucidum; C, Stratum granulosum; D, Stratum mucosum; E, Stratum pigmentosum.

THE STRATUM GRANULOSUM, or granular layer is also thin; it is composed of one or two rows of granular cells disposed in a horizontal manner. It is this layer which gives the color to the skin in white races. It merges insensibly into the next layer.

THE STRATUM MUCOSUM, mucous layer, or rete Malpighii, is the deepest and most important layer of the epidermis. It rests upon the corium, and is connected with it by a series of digital prolongations (papillæ). It is built up of polyhedral, nucleated epithelial cells, filled with granular contents and united to each other by delicate fibres. The nuclei of these "prickle" cells are large, and delicate filaments radiate to the cell wall. Between these cells we have an intercellular substance known as the "cement substance." The lowest layer of cells differs from the rest of the rete in that it is composed of columnar cells with large nuclei. They contain the largest portion of the pigment, and this layer is so distinct that it should be classed as an independent one, or as a "pigment layer." Its morphological structure is such as to insure resistance to all external pressure, constituting a true arch. As the cells are closely pressed against each other, and do not exhibit prickles, they differ sufficiently

from the prickle cells in their structure and distribution to constitute them a distinct layer or stratum pigmentosum.

The Corium, derma, cutis vera, or true skin, is divided into two layers, the stratum papillare, and the stratum reticulare.



Fig. 5.—Section of Skin showing Papillæ of Different Sizes.

THE STRATUM PAPILLARE, or papillary layer, is the uppermost, resting directly beneath the mucous layer of the epidermis. It is composed of fine connective tissue, the bundles of fibres of which decussate and become felted, as it were. It appears in the form of numerous digital prolongations—the papillæ—which are more or less developed in different portions of the body. They are bulbous, conical or blunt at the apex. They are either vascular or nervous, according as they contain the terminal loop of a blood-vessel, or the termination of a non-medullated nerve fibre.

THE STRATUM RETICULARE, or reticular layer, is composed of coarser connective tissue fibres, the papillary layer gradually merging into it. It, in turn, also merges into the subcutaneous connective tissue, which is still coarser and more open.

The Subcutaneous Connective Tissue serves the purpose of holding the fat, and supporting the vessels and nerves. It also contains the convoluted portion of the coil glands,

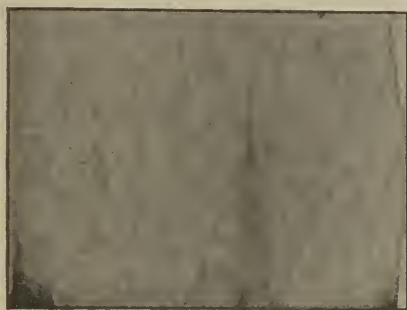


Fig. 6.—Subcutaneous Adipose Tissue.

the hair follicles and the Pacinian corpuscles. It is composed of loosely connected connective tissue bundles.

THE BLOOD-VESSELS of the skin are the arteries and veins, which take their origin from subcutaneous branches, which are subdivided in the corium. They are more abundant on the

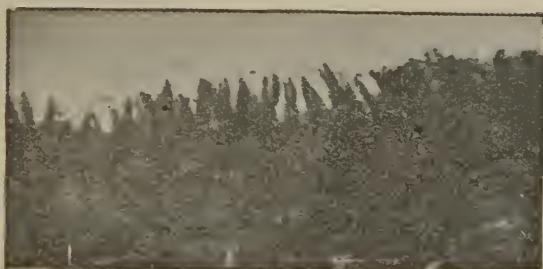


Fig. 7.—Papillary Vessels Injected.

flexor aspects of the limbs than on the extensor. There are three horizontal networks of these blood-vessels: one in the subcutaneous connective tissue, one in the deeper portion of the corium, and one just beneath the papillary layer. These are connected with each other by vertical branches. This last network gives off loops which bend back upon themselves and which form the so-called "papillary loops" (Fig. 8). They are numerous and are instrumental in making the skin very vascular, play-

ing an important part in many cutaneous affections. Besides this, we have the arterioles connected with the coil glands, the sebaceous glands, and the hair follicles. The blood-vessels, in general, are accompanied by filaments of the vasomotor system of nerves.

THE LYMPHATIC VESSELS are relatively few, and are almost entirely limited to that portion of the skin beneath the epidermis.



Fig. 8.—Cutaneous Lymphatics.

A, Lymphatic vessel. B, Artery.

There are *lymph spaces*, however, separating the epithelial elements of the rete mucosum, extending between the prickle cells and existing in the papillæ of the corium, about the different glands, hair-follicles, and nail-beds (Fig. 4).

THE NERVES of the skin are two-fold in character, viz.: non-medullated and medullated. They are derived from horizontal twigs in the subcutaneous tissue and distributed to the corium.

THE NON-MEDULLATED fibres “penetrate to the epidermis between the epithelia in great abundance. * * * They either terminate between the prickle cells as ultimate bulbous terminations of finely beaded fibrillæ, or they penetrate the epithelia themselves in pairs.” Whilst some observers claim to have discovered very fine filaments terminating in the nuclei of the prickle cells of the rete mucosum the observations have not received sufficient confirmation to make the statements positive. It is probable, however, that the statement is a correct one. The non-medullated nerves of the skin are so little understood and known that the subject invites further study in view of the fact of the important bearing they probably have in the etiology of many cutaneous diseases. We find filaments of these nerves in the sheaths of hairs and ducts of the coil glands.

THE MEDULLATED NERVES consist of the papillary loops, Pacinian corpuscles and tactile corpuscles.

THE PAPILLARY LOOPS pass into papillæ, the nerve forming one or more of these loops, and then returns to the subpapillary portion of the corium, or it turns back again to another papilla.

THE PACINIAN CORPUSCLE, or corpuscle of Vater, is a small ovoid body, 2.4 mm. long (1-25 in.) situated subcutaneously and occurring chiefly about the fingers, nipples and penis. The nerve proper is found in the centre, as a club-shaped termination, surrounded by a protoplasmic core. This, in turn, is cov-

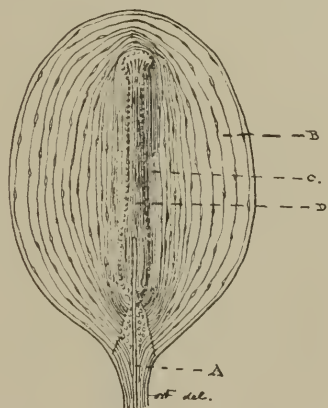


Fig. 9.—Pacinian Corpuscle.

A, Medullated nerve fibre; B, Capsular enclosure; C, Central fibre; D, Core.

vered by a series of concentric nucleated, vascular capsules, which grow denser towards the periphery. Those vascular capsules are composed of flat cells containing long nuclei, the outer envelope consisting of polygonal flat cells very indistinctly nucleated.

THE TACTILE CORPUSCLE (corpuscle of Meissner, or of Wagner) is also ovoid in form, composed of two or three capsules, and situated in the papillæ of the corium. The capsule is formed of closely packed connective tissue fibres, with small nuclei, and within a medullated nerve-fibre deprived of its myeline sheath. The filament divides, and surrounds and penetrates the capsule. It is claimed that these corpuscles have efferent and afferent fibres.

THE PIGMENT exercises a varying degree of influence in giving the color to the skin. It exists normally only in the lowermost layer of cells of the mucous layer (stratum pigmentosum), some granules being irregularly scattered throughout the layer.

It is not found, as a rule, in either the horny layer or in the corium in the Caucasian. It is to the pigment that the color of the African race is chiefly due, it having no influence on the coloration of whites, unless it be under the influence of solar heat.



Fig. 10.—Section showing Pigment Layer.

THE MUSCLES connected with the skin are striated and unstriated. The striated muscular fibres extend from the subcutaneous tissues into the corium, and are found chiefly about the face and neck. The unstriated muscular fibres are found surrounding the nipple, in the orbicularis muscle, or in connection with glands. The *arrectores pilorum* are composed of fasciculi arising from the papillary layer of the corium, and inserted into the outer layer of the hair follicle, the direction being oblique, and the fibres are so disposed as to include the sebaceous gland in the angle which is subtended. The action of these muscles is to cause the hairs which are normally at an angle to assume a perpendicular position.

THE COIL GLANDS, better known as the sweat glands, consist of globular coils situated in the subcutaneous tissue and deeper portions of the corium. The coil gland consists of three parts—the convoluted, situated in the subcutaneous connective tissue; the straight tube, passing through the corium; and the spiral portion included in the epidermis. The coil terminates in

a cul-de-sac. It is lined with columnar epithelial cells, nucleated, with granular contents. The excretory duct passes upward to the epidermis, always taking its course between papillæ, and



Fig. 11.—Coil Gland.

pursues a straight or spiral direction. At the border of the epidermis, it loses its inner lining membrane as well as its investment of connective tissue, and becomes the *sweat pore*. This sweat pore is simply a channel, straight or spiral, connecting the



Fig. 12.—Sweat Pore.

duct of the coil gland with the surface of the stratum corneum. It also has a connection with the intercellular spaces of the strata above the stratum mucosum. This gland secretes fat and granules of pigment, whereas the sweat pore excretes the sweat. The

coil glands are also said to be concerned in the formation of the subcutaneous fat-cushion and "*columnæ adiposæ*."

THE SEBACEOUS GLANDS are situated in the corium, and furnish a fatty secretion whose purpose it is to lubricate the skin and hairs, and act as a non-conductor of heat and cold to the surface by means of the fatty secretion furnished. The glands themselves are usually racemose, and are divisible into three varieties: 1° Those which open directly into a hair follicle; 2° Those opening upon the skin and associated with rudimentary hairs; 3° Those opening directly upon the surface, but not associated with hairs. The second are the most complex, the last

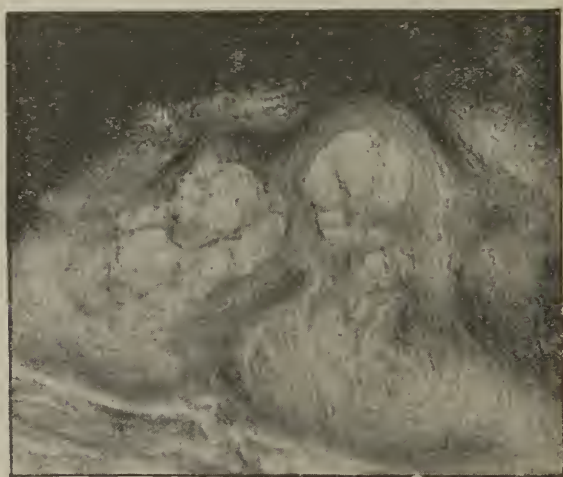


Fig. 13.—Sebaceous Gland.

the most simple. The structure of a gland consists of a basement membrane upon which a columnar layer rests, corresponding to the "*pigment layer*" of the *stratum mucosum*. Upon this polygonal cells rest, there being one or more layers, the topmost undergoing fatty degeneration. Towards the centre we have a mass of epithelial debris, oil globules, etc. This gland, like the coil gland, is formed by a dipping-in of the epidermis in early fetal life. As already mentioned, the sebaceous glands are inclosed by the *arrectores pilorum* muscles whose contractions aid in the expulsion of their contents; whereas, in the case of the coil glands, they impede this action.

HAIRS are fine, long, epithelial bodies, arising from depressions in the skin (hair follicles). They vary greatly in length, size and color. We find white, black, brown, blonde and red hair, with all the intermediate shades. Ringed hair is a peculiar condition, pathological in its nature. The darker the color the more coarse the hair. Irrespective of the color or the straight or curly condition, it may be stated in a general way that there

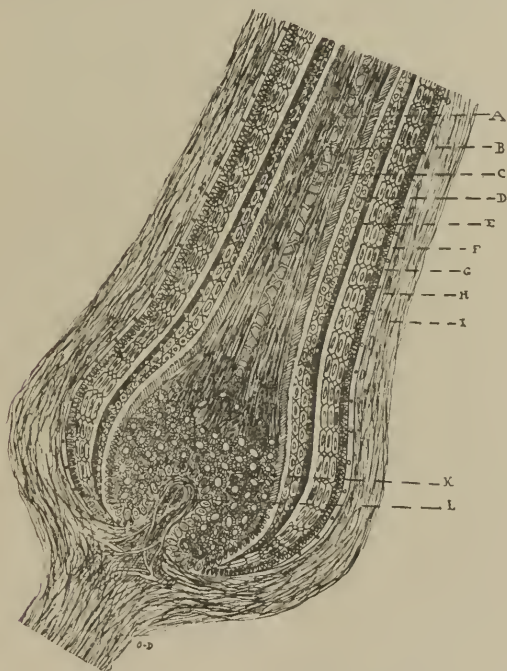


Fig. 14.—Diagrammatic Section of Hair.

A, Medulla. B, Shaft. C, Cortex. D, Internal layer of internal root-sheath. E, Outer layer of internal root-sheath. F, Internal layer of hair follicle. G, Middle layer of hair follicle. H, External layer of hair follicle. I, Adventitia. K, Root of the hair. L, Papilla.

are three kinds: 1° The short, fine hairs, or *lanugo*, covering the face, trunk and limbs; 2° the long, soft hairs, such as we find on the scalp; 3° the short, thick hairs, such as the eye-lashes. In a fully developed hair we find it to consist of a point, a shaft, and a bulb embedded in a hair follicle.

THE HAIR FOLLICLE is a depression in the corium whose axis is at an oblique angle relatively to the plane of the cutane-

ous surface. It is the peculiar distribution of the follicles that forms the whorls of hairs. Two-thirds of the embedded portion is situated in the connective tissue of the corium. A follicle

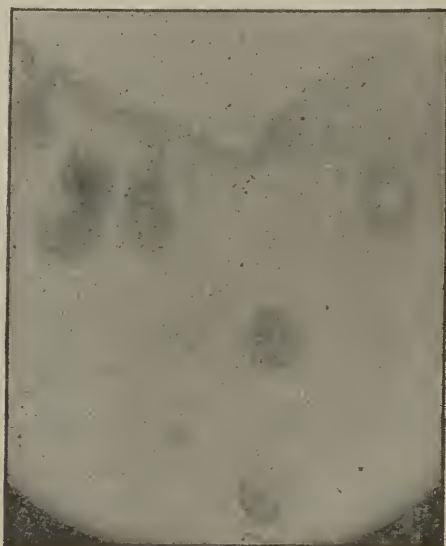


Fig. 15.—Development of Hair in Embryo.

consists of an external longitudinal fibrous layer, a middle transverse layer, and an internal homogeneous vitreous layer. At the base of the follicle there is a fibrous pedicle, surrounding the blood-vessels and nerves.

THE BULB, or root, is that portion of the hair which is embedded. It is bulb-shaped, extending below the follicle proper, and is implanted on a conical projection—the hair papilla. The bulb embraces the papilla, and externally is composed of pigmented cells forming the cortex. The cells become longer and more vertical higher up. Within the bulb we have the medulla, composed of non-pigmented horizontally broadened cells. The medulla rests upon the apex of the papilla, and forms a core to the bulb.

THE SHAFT extends from the surface of the skin to the distal extremity, which tapers to a point. It is straight, curled, or wavy, according to the amount of flattening which is present. The color of the hair depends upon the pigment cells and air in

the shaft. The *cortical portion*, or external layer, is composed of flat, nucleated, fusiform epithelial cells, which are imbricated in such a manner that the separations between the cell open upwards. It is upon this layer that the elasticity and extensibility of hair depends. The *medullary portion*, or marrow, consists of loose epidermal elements, pigment and fatty matters. There is coloring matter in this, as well as in the cortex.

When a hair is about to be shed, it separates from the papilla, which is composed of fine connective tissue, and contains blood-vessels and nervous filaments, and rises in the follicle until above the papillary apex. It is held by the prickle layer, and is then a "bed-hair." An epithelial bud springs below or into the corium on one side, forming a new hair. About the time the new hair is emerging, the old one is cast off.

NAILS are dense, horny, concavo-convex plates attached to the dorsum of the distal phalanges of the fingers and toes. There are four borders, the one at the distal point being free. The convex surface is exposed, the concave being implanted in the nail bed.

The posterior portion of the nail, hidden by a fold of skin, is composed of from three to six rows of papillæ. Immediately in front of this there is a lenticular portion—the *lunula*—composed of converging ridges which become smaller, these two portions constituting the *matrix*, the tissue from which the nail springs. Anterior to the lunula, up to the free border, is the nail-bed, which consists of higher ridges of papillæ of uniform height on which are situated prickle cells. Both the matrix and nail-bed are very vascular, and bleed quite freely when injured, this being due to the comparatively large size of the vascular papillæ which supply the parts.

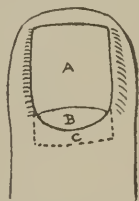


Fig. 16. — Diagram of Nail.

A, Nail-Bed; B, Lunula; BC, Matrix.

The nail consists of horny filaments passing from the matrix or floor of the nail-fold. The upper surface grows from the bottom of the nail-fold, and the under surface from the lunula. The *nail-fold* is that crescentic portion of integument which clasps the nail posteriorly and laterally. The *lunula* is the light colored space arising from the middle part of the nail-fold and extending some distance towards the distal portion of the nail, its upper boundary being a convex curve. In other words, it is that portion of the matrix not concealed by the nail-fold. The light color which it presents is due to keratogenous cells. The white spots seen in nails are due to the presence of air, as a rule.

SYMPTOMATOLOGY.

A brief description of the symptoms observed in skin diseases is here given, it being essential to master these in order to come to a proper understanding of clinical descriptions. Symptoms may be either subjective or objective. For the former we must depend upon the patient; and, on this account, the varying degrees of intensity are difficult to determine, much depending upon the physical build, mental peculiarities, and nervous organization of the subject.

The principal **Subjective Symptoms** are as follows:

1. Anesthesia.
2. Hyperesthesia.
3. Analgesia.
4. Burning.
5. Tingling.
6. Smarting.
7. Itching.
8. Formication.
9. Pain (neuralgic).

These hardly require any explanation, as they are terms in constant use and familiar to all.

The **Objective Symptoms** are those which present themselves to the observer, and which in dermatology are termed *lesions*. Of these we have two kinds—*primary* or elementary, and *secondary* or consecutive. They are as follows:

I. PRIMARY LESIONS.

1. Maculæ; macules, spots.
2. Papulæ; papules.
3. Vesiculæ; vesicles.
4. Bullæ; blebs, blisters.
5. Pustulæ; pustules.
6. Pomphi; wheals.
7. Turbacula; tubercles.
8. Phymata; tumors.

II. SECONDARY LESIONS.

1. Pigmentatio; stain.
2. Squamæ; scales.
3. Crustæ; crusts, scabs.
4. Rhagades; fissures.
5. Excoriationes; excoriations.
6. Ulcera; ulcers.
7. Cicatrices; scars.

PRIMARY LESIONS.

A **MACULE**, or "spot," is a flat, discolored portion of the skin which may be irregular in size and shape and which is not the result of a previous lesion, such as we see in chloasma or purpura.

A **PAPULE** is a solid, circumscribed elevation of the skin, varying in size from a pin-head to a split-pea, conical or semi-

globular in shape, whose color may be red, pale or dark, yellow or white, as in milium, acne, lichen ruber, etc.

A **VESICLE** is a conical or rounded, circumscribed elevation of the horny layer of the epidermis, containing a clear or opaque fluid, varying in size from a pin-point to a split-pea, and conical, rounded or umbilicated in form. It may be seen in herpes, zona, eczema, miliaria, variola, etc.

A **BLEBS** is an irregularly dome-shaped or flattened elevation of the horny layer of the epidermis, varying in size from a split-pea to a goose-egg and containing clear or opaque fluid, as in pemphigus and ambustio.

A **PUSTULE** is a circumscribed, flattened, conical, or umbilicated elevation of the horny layer of the epidermis, which varies in size from a pin-point to a silver half-dime, and which contains pus, as in acne, sycosis, eczema, etc.

A **WHEAL** is an irregularly-shaped, more or less solid elevation of the skin, of an evanescent character, as in urticaria.

A **TUBERCLE** consists of a circumscribed, solid elevation of the skin, reddish, pinkish or whitish in color, irregular in shape and varying in size from a split-pea to a cherry or larger, as in tuberculosis and lepra.

A **TUMOR** is a soft or firm prominence, of irregular shape, and varying in size, such as in fibroma, sarcoma, steatoma, etc.

SECONDARY LESIONS.

A **STAIN** is similar to a macule in its characteristics, but differs from it in its origin, being the result or remains of a previous lesion or due to the presence of some foreign substance in the skin, as the coloration following ulcers, tattooing, etc.

A **SCALE** is a large or small, thick or thin, dry, laminated mass of epidermis which has separated from the underlying tissues, and which may vary in size and form, as in psoriasis, pityriasis rubra, etc.

A **CRUST** is a collection of the dried products of a disease. It may vary greatly in size, shape and color, as in eczema, favus, etc.

A **FISSURE** is a linear solution of continuity, having its seat in the epidermis or down through the corium, as in eczema.

AN **EXCORIATION** is a loss of tissue, confined to the upper layers of the skin, and varies in shape, size and depth, as in pediculosis and scabies.

AN **ULCER** is an excavation of the cutaneous tissue, the result of disease, and varying in extent, besides being irregular in shape.

A SCAR is a connective tissue new formation occupying the place of normal tissue which has been destroyed.

These constitute the elementary lesions of skin diseases. Several of these will be found combined as the result of the same process. When the lesions are taken together they constitute an *eruption*. A comparatively small portion of an eruption, which is separated, is known as a *patch*. When lesions are distributed over a large surface, the eruption is said to be *disseminated*. If the lesions are close to each other they are *aggregated*; if separated the eruption is *discrete*. If the patches are round, like coins, they are *nummular*; if circular, with a clear centre, they are *circinate*, or *annular*. If they consist of portions of circles, which have coalesced, they are called *gyrate*. If consisting of very fine lesions it is *miliary*. This list might be increased many times, but the terms are for the most part, self-explanatory.

ETIOLOGY.

In the consideration of the etiology of skin diseases, in general, we are led to a review of the general etiology of disease. For the purpose of convenience, however, the causes of skin diseases may be divided into external and internal. Thus we may have as external causes solar heat and light, temperature changes and general telluric and atmospheric agents. The seasons exert a marked influence, and we may include under this head temperature, humidity, soil, water, etc. Among direct external causes are such as are frictional, traumatic, toxic and parasitic. Under these may be included the micro-organisms.

Those causes of a general nature which exert an influence on the skin, either in causing the appearance or prolonging the stay of diseases, may be denominated systemic poisons, such as syphilis, etc., heredity, age, disordered functions, disease of the various viscera, and diseases or lesions of the nervous system. The so-called "diatheses"—the herpetic, the rheumatic, the gouty, etc.—have also been invoked by some as causes of certain classes of dermatoses. Besides what has been enumerated, there are causes unknown up to the present, they having successfully eluded the most searching clinical investigation and analysis.

In general terms it may be stated that the causes of skin diseases, in so far as they are direct, may be determined with a fair degree of certainty. But the remote reasons are very difficult of explanation, or only so in such an unsatisfactory manner as to lead to no definite conclusion. However, this is no peculiarity to be found in dermatology alone, as we find the same condition of affairs in medicine in general. The vast strides that have been made of late years bid fair to elucidate the general subject of etiology to a degree such as will prove of the highest value to therapeutics.

DIAGNOSIS.

If there be any department in medicine in which nearly everything depends upon the accuracy of the diagnosis, it is dermatology. It is essential to be exact, observing, critical and to possess a peculiar adaptability for the discrimination of color, form and size. Care and patience are also important requisites. A systematic method of examination should always be pursued. The past history of the patient should be obtained, all previous diseases noted and an inquiry made into his habits. Not only this, but the occupation, method of living, environments, and other circumstances surrounding him should be taken into consideration. The history of the present attack should also be carefully noted before an objective examination is made, and its duration carefully noted.

To examine a patient properly, one of the prerequisites is good light. Good diffused sunlight is the only one that can be relied upon, as many artificial lights absorb all the yellow color. In the next place, the temperature of the room in which the examination is made should be comfortable in order to avoid the circulatory changes due to too great heat or cold.

Not only the portion implicated should be examined, but the entire body as well, as such a procedure not only aids greatly in forming a correct diagnosis, but often furnishes information not to be obtained in any other manner. The exact nature of an eruption may be clouded by the production of artificial lesions or the modification of the original ones by means of modes of treatment of various kinds, or other causes. By exposing the entire cutaneous surface, patches of the original trouble will often be found, and they will aid in clearing what might otherwise be a puzzling or false diagnosis.

The diagnosis of a patient should never be accepted, and by refusing to consider this, and by making a thorough and care-

ful examination the pernicious habit of jumping at conclusions, very often false, is avoided.

Finally, we have a great aid to diagnosis in the microscope. This means is particularly valuable in parasitic diseases and those due to micro-organisms. In fact, even if the diagnosis be certain, the microscope should be used so as to obtain greater familiarity in its manipulation and, at the same time, confirm the conclusion formed by the inspection of a purely clinical picture.

THERAPEUTICS.

The treatment of skin diseases includes not alone the treatment of the lesions proper, but that of the remote causes as well. As these latter include general systemic disturbances as well as troubles of separate organs and systems, it will be readily seen that a good general knowledge of therapeutics is an essential to the successful treatment of cutaneous affections. By general therapeutics is meant the treatment of a uterine or ovarian disorder causing an eruption, of a gout lying at the bottom of an eczema, of a catarrh causing an acne, etc. It is for this reason that the determination of the etiological factors is of so much importance.

The treatment of skin diseases may be stated, in general terms, to be internal and local. The internal treatment is frequently all-sufficient, but should be judicious in its nature. One fact should never be lost sight of, and that is that arsenic is by no means the universal panacea which it is erroneously supposed to be. Its applications are extremely limited. In the form of Fowler's solution it generally does more harm than good. It should be given in the form of arsenious acid in the Asiatic pill. In any event, its administration should be limited to the indications, which, as a general rule, are few in number. Iodide of potassium is another much abused remedy, which, when indicated is given in such small doses as to produce more of its deleterious than of its good effects. The different remedies administered are so numerous that the reader will not be burdened with their recital, but is referred to the treatment mentioned under each separate disease.

The local applications which are made are of various forms. We have lotions which are solutions in water, alcohol, ether, or some similar vehicle, and clear, or containing some powder which is precipitated. These preparations are of a more or less evan-

escent nature. Soaps are medicated and employed as detergents of small medicinal value, but still serving to aid the action of remedies in a slight degree. The ointment is a fixed dressing, permitting the perspiration to pass through it, and still remaining upon the integument. It constitutes a most valuable method of local medication. The cerate differs but little from the ointment, being more firm in its nature, and not yielding so readily to the bodily temperature. The bacilli, or tallow sticks, are a modified form of the preceding for the purpose of applying a stiff ointment with greater facility. Pastes are generally composed of a base of glycerine and kaolin containing some medicament. They dry rather rapidly, but form good permanent dressings, adapted to particular cases. The gelatins, on the other hand, have a tendency to form an adherent pellicle which absorbs moisture, and thus prevents a softening and separation of the horny layer of the epidermis. Collodion and rubber solutions also form pellicles, but they are impervious to moisture, and thus lead to softening of the surface of the skin, and consequent absorption of the remedies they contain. Plasters act in much the same manner, more especially the plaster mulls, which consist of a very thin layer of rubber spread over gauze and having an ointment spread over this, or partially incorporated so far as the active ingredient is concerned.

To go into greater details as to remedies and the peculiar forms in which they are employed would necessitate more space than is available.

PATHOLOGY.

The pathology of skin diseases is merely general pathology localized upon one organ, and is a field rich in material and of the greatest promise to the investigator. We find the various changes, incident to tissues of other organs, showing themselves in those of the integument. Atrophy and hypertrophy manifest themselves in their various forms, as well as hyperplasias of different degrees. Erythema, congestion, stasis and other circulatory changes are numerous, both in form and number. Inflammation is one of the most important pathological processes observed, and the various, as well as varied, pictures it presents in relation to the skin are such as to lead us to make deductions most interesting and valuable, not only so far as the gross appearance and causes are concerned, but on account of the different tissues implicated in the process. No less interesting are the neoplasmata or new growths, both malignant and benign. They form a large class of diseases in which it is of the utmost importance to determine the true nature of the process, so as to be enabled to arrive at a proper and satisfactory conclusion. Bacteriology plays a by no means unimportant part, whose value is best appreciated in the therapeutical applications to which it leads. It may be truthfully said that the pathology of skin diseases covers almost the entire domain of that subject; for, although it has not yet been found to embrace it in its entirety, up to the present time, the observations which are being daily made are becoming so numerous that the entire subject will soon be covered in the investigations which are so vigorously prosecuted.

PROGNOSIS.

There is perhaps nothing more important to the patient than the prognosis of his affection, as this involves the question of a cure, or the reverse. It also includes consequent deformity, and it is this latter question which is of importance to the physician, as he is enabled to protect himself from the accusation of maltreatment. From a cosmetic point of view it is also of more than ordinary importance.

Skin diseases are acute or chronic, amenable to treatment or very rebellious, with all the intermediate degrees of stubbornness to therapeutic measures. Some are destructive in their effects and some are essentially incurable. Again, there are affections which, while curable under some circumstances, are not so under others, simply from the fact that they are dependent upon some general condition which cannot be relieved. It is on account of this that the examiner cannot be too careful in his inquiries into the general state of the patient.

As a rule, diseases in infants and children have a tendency to be acute, and readily yield to proper treatment. In the old the tendency is to chronicity and consequent rebelliousness to therapeutic measures. Tissues are more easily destroyed in the old, and proportionately easily regenerated in the young. The old are more prone to the influence of malignant processes. The skin is less active, is weaker and more or less atrophied in the aged, all of these factors influencing the prognosis to be made in a given case.

Atrophy, hypertrophy and degeneration are also more prone to attack those in middle life or old age. Parasites are more common in the young. Of course, exceptions will be found occasionally, but the above are the most frequently observed.

CLASSIFICATION.

The arrangement here presented is essentially that of the American Dermatological Association. Like all others, it contains defects, but it will be found to be simple and quite convenient, which are qualities to recommend it. No attempt has been made to include all the known skin diseases in this list. A large number will be found mentioned in the text. As will be noted, the plan is partly etiological, partly pathological and, to a certain degree, symptomatic. However, it is a very good one to facilitate the formulation of a diagnosis.

CLASS I.—*Disorders of Secretion and of Excretion.*

A. *Sebaceous Glands.*

- Seborrhea.
- Asteatosis Cutis.
- Comedo.
- Milium.
- Sebaceous Cyst.

B. *Sweat Glands.*

- Hyperidrosis.
- Anidrosis.
- Bromidrosis.
- Chromidrosis.
- Sudamina.

CLASS II.—*Hyperemias.*

A. *Erythematous.*

- Erythema Simplex.
- Roseola.
- Erythema Intertrigo.
- Erythema Scarlatiniforme.

CLASS III.—*Inflammations.*

- A. *Erythematous.*
Erythema Multiforme.
Erythema Iris.
Erythema Nodosum.
Urticaria.
- B. *Erythematous, Vesicular, Papular, Pustular, Squamous.*
Eczema.
Eczema Seborrhoicum.
- C. *Vesicular.*
Herpes.
Herpes Zoster.
Herpes Iris.
Dermatitis Herpetiformis.
Miliaria.
- D. *Bullous.*
Pemphigus.
Dermatitis Bullosa.
- E. *Papular.*
Lichen Ruber.
Prurigo.
Lichen Scrofulosus.
- F. *Pustular.*
Acne.
Acne Rosacea.
Sycosis.
Perifolliculitis.
Dermatitis Papularis Capillitii.
Impetigo.
Impetigo Herpetiformis.
Impetigo Contagiosa.
Ecthyma.
- G. *Squamous.*
Psoriasis.
Pityriasis Maculata et Circinata.
Pityriasis Rubra
- H. *Phlegmonous.*
Furunculus.
Furunculus Orientalis.

H. *Phlegmonous*.—*Continued*.

Anthrax.
Equinia.
Pustula Maligna.

I. *Erythematous, Vesicular, Bullous, etc.*

Dermatitis.
Dermatitis Medicamentosa.

CLASS IV.—*Hemorrhages*.A. *Corium, etc.*

Purpura Simplex.
Purpura Hemorrhagica.
Peliosis Rheumatica.

CLASS V.—*Hypertrophies*.A. *Pigment*.

Lentigo.
Chloasma.
Addison's Disease.
Nevus Pigmentosus.

B. *Epidermis, Papillæ*.

Callositas.
Clavus.
Cornu Cutaneum.
Cornu Unguale.
Verruca.
Ichthyosis.
Keratosis Pilaris.

C. *Corium*.

Scleroderma.
Morphea.
Sclerema Neonatorum.
Elephantiasis.
Dermatolysis.

D. *Hair*.

Hypertrophy of the Hair.
Hypertrichosis.

E. *Nail*.

Hypertrophy of the Nail.
Onychogryphosis.

CLASS VI.—*Atrophies.*

- A. *Pigment.*
 - Albinism.
 - Vitiligo.
 - Canities.
- B. *Corium.*
 - Atrophia Cutis
 - Atrophia Senilis
 - Striæ et Maculæ Atrophicæ.
 - Ainhum.
- C. *Hair.*
 - Alopecia.
 - Alopecia Areata.
 - Trichorrexis Nodosa.
 - Plica Polonica.
 - Piedra.
 - Atrophy of the Hair.
- D. *Nail.*
 - Atrophy of the Nail.

CLASS VII.—*New Growths.*

- A. *Connective Tissue.*
 - Keloid.
 - Molluscum Fibrosum.
 - Xanthoma.
 - Psorospermiosis
- B. *Cellular.*
 - Rhinoscleroma.
 - Molluscum Epitheliale.
 - Lupus Erythematosus.
 - Lupus Vulgaris.
 - Scrofuloderma.
 - Tuberculosis Cutis.
 - Mycetoma.
 - Lepra.
 - Syphiloderma.
 - Mycosis Fungoides.
 - Carcinoma.
 - Epithelioma.
 - Sarcoma.

- B. *Celular.*—*Continued.*
 - Adenoma Sebaceum.
 - Xeroderma Pigmentosum.
- C. *Blood - Vessels.*
 - Nevus Vasculosus.
 - Telangiectasis.
- D. *Lymphatics.*
 - Lymphangiona.
- E. *Nerves.*
 - Neuroma.
- F. *Muscles.*
 - Myoma.

CLASS VIII.—*Neuroses.*

- A. *Hyperesthesia.*
 - Hyperesthesia Cutis.
 - Dermatalgia.
 - Pruritus.
- B. *Anesthesia.*
 - Anesthesia Cutis.
- C. *Analgesia.*
 - Analgesia Cutis.

CLASS IX.—*Parasites.*

- A. *Vegetable.*
 - Tinea Favosa.
 - Tinea Tricophytia.
 - a. Tinea Corporis.
 - b. Tinea Capitis.
 - c. Tinea Barbæ.
 - Tinea Versicolor.
 - Erythrasma.
 - Actinomycosis.
- B. *Animal.*
 - Scabies.
 - Pediculosis.
 - a. Pediculosis Corporis.
 - b. Pediculosis Capitis.
 - c. Pediculosis Pubis.

B. *Animal.—Continued.*

Cimex Lectularius.

Pulex Irritans.

Dermanyssus Avium.

Demodex Folliculorum.

Filaria Medinensis.

Cysticercus Cellulosæ.

The above does not contain a complete list of the diseases of the skin, nor is it intended to be more than a general guide.

CLASS I.—DISORDERS OF SECRETION AND EXCRETION.

The diseases which are comprised in the above class, while purely functional in character, are of importance on account of their frequency and character. They embrace the disorders of secretion and excretion of the sebaceous and coil glands. They are not inflammatory in nature; and those pathological processes, found accompanying these disorders, which are not concerned in the purely functional disturbances of the glands, are accidental and not necessary accompaniments of the disease process.

SEBORRHEA.

Syn.—Seborrhagia, Fluxus Sebaceus, Dandruff, Acne Sebacea, Stearrhea, Ichthyosis Sebacea.

This disease is characterized by hypersecretion of sebum, and may exist upon any portion of the body, except the palms and soles. It is found to occur most frequently upon the scalp ("dandruff"). It is also found quite often upon the face and trunk, although the latter is the most infrequent.

Two principal varieties of this disease are recognized—seborrhea sicca, and oleosa.

Seborrhea sicca is most frequent upon the scalp, although it occurs in other localities. It appears that it has a predilection for hairy parts so that we find it generally in the scalp, beard or eyebrows. It presents the appearance of thin or thick crusts, composed of yellowish or greyish, sometimes dirty-looking scales, which separate quite easily, are easily friable, and have an unctuous feel. The surface involved varies considerably in extent, from a patch not larger than a silver dime to comparatively large areas. The skin beneath these accumulations of



SEBORRHEA SICCA.

sebum has a pale appearance, unless scratching or some irritating measure has caused a reddish appearance. Itching is a symptom which is a constant accompaniment of this form of the disease, and is quite marked when hairy parts are involved; more so than in other portions. In the scalp or beard the sweating indulged in separates the scales, which appear branny (see Plate I) and they are distributed over the clothing of the patient.

Seborrhea oleosa is the wet or oily form. It is seen most often during hot weather, and generally on the face about the alæ of the nose. It presents a shining, glistening appearance, the liquid sebaceous matter conveying the impression that oil has been poured upon the skin. A strong, unpleasant odor accompanies the secretion, this being most marked about the umbilicus, axillæ, genitalia and perineum. This odor is more accentuated in those whose skins are dark, and is of a penetrating sort, being due to the decomposition of fatty acids. The consequent irritation of this decomposition produces some inflammatory reaction which manifests itself in more or less erythema.

Seborrhea may be either local or universal. As a rule it is the former. In congenital, universal seborrhea, the integument is stretched, the eyes and the lips are fixed; and the fingers, toes, and auricles are undeveloped. A child so affected presents a more or less mummy-like appearance, which is accentuated by the accompanying emaciation.

Seborrhea occurs at or after puberty; also in conjunction with or after severe fevers, systemic disorders, etc. While the disease is often dependent upon internal causes, cases are met with in which no known cause can be fixed upon to account for its presence.

The differential diagnosis is comparatively easy, as the only disorders with which it might be possibly confounded, are eczema, psoriasis, ringworm, and erythematous lupus.

The treatment of seborrhea, in the majority of cases, should be both constitutional and local. Good food, good air, good water, and, where debility or anemia exists, cod-oil combined with ferruginous tonics and the hypophosphites. If the cause can be found, direct the treatment to that. A remedy of value, at times, is the sulphide of calcium (gr. 1-10 to 1-5 four to six times daily). Exercise should also be enjoined.

Local treatment is very important and, frequently, is all that is necessary. In seborrhea sicca the accumulated sebum should first be removed by soaking in oil and thoroughly rubbing in—

℞ Sapo. viridis.....	℥viii.
Alcoholis.....	℥iv.
Solve et filtra.	

Take a half ounce of this mixture with water and shampoo the part well. A very good and efficient preparation is Johnstone's ethereal antiseptic soap. It is a detergent which acts both rapidly and efficiently and prepares the integument for the subsequent applications. After using this or any other similar preparation it is proper to dry the parts and apply some stimulating preparation, if there be not too much irritation following the wash. For stimulation, lotions may be employed such as contain carbolic acid, cantharides, tincture of capsicum, bi-chloride of mercury, etc. The following is an excellent mixture to use, and care should be taken, in connection with all lotions applied to hairy parts, to see that the integument and not the hair receives the medication.

℞	Resorcini.....	℥i.
	Beta-naphthol.....	℥i.
	Tinct. cinchon. co.....	℥iii.
	Spts. myrciæ.....	℥vi.
M.	Apply twice daily.	

In non-hairy parts ointments are preferable, the following acting nicely:

℞	Sulphuris precip.....	℥ss—℥ij.
	Zinci oxidi.....	℥ss.
	Ung. aquæ rosæ.....	℥i.

M.

The ammoniated mercury, red oxide of mercury, oleate of mercury, resorcin, beta-naphthol, etc., may also be used with benefit.

The prognosis of this affection is rather uncertain. The disease is essentially a chronic one, and much depends upon the general state of the patient. When occurring upon the scalp it may produce falling of the hair, unless treated energetically. It is more amenable to treatment upon non-hairy portions of the body. When universal, it is usually fatal.

ASTEATOSIS CUTIS.

In this there is a diminished or arrested secretion of sebum, generally local in small or large patches. The skin is dry, harsh and easily fissures at the flexures. It is found in all the atrophies of the skin, and accompanies some affections (ichthyosis, lichen ruber, psoriasis). Local influences also produce it, such as exposure to alkalies, alcohol, etc. A congenital defect in the sebaceous glands, either in number or in size, may also act as a causative factor. There is no difficulty in recognizing this condition. The only method of treatment which is at all of any value is one which is calculated to supply the deficiency in secretion by applying some bland fats or oils. In addition to this, internal remedies of such a nature as to be of value in adding tone to the nervous system will be found valuable. Arsenauro has an excellent influence in this respect, and greatly aids the efforts made to ameliorate the condition. It is, however, necessary that unremitting attention be paid to it, as it has a tendency to return to its former condition.

COMEDO.

Syn.—Acne punctata, Black-heads.

This disease, often found in connection with acne, presents the appearance of small black points, more or less marked, either on a level with the skin, or as the central black dot of a slight, whitish, conical elevation. The parts most frequently attacked are the face, neck and back, although the chest may be implicated. It is often seen in the ears as well. There are no subjective symptoms connected with comedo.

It is a functional disease of the sebaceous glands, in which, through some cause, the innervation is below par. An inspissation of sebum takes place in the gland itself, and that portion which is in the duct contracts and hardens. Foreign material accumulates in the mouth of the duct and colors it black. Sometimes the black dots occur in pairs, both ducts communicating with one cavity—*double comedo*. It makes its appearance at or about the period of puberty, although it may occur at any age. It has been seen in infancy, and it is not uncommon in old age.

The causes of comedo are various. Constipation, dyspepsia, gastric catarrh, etc.; hepatic troubles, chlorosis or anemia may cause it. Some occupations, such as coal mining, working in tar, in machine shops, etc., also cause it.

There is no difficulty in making a diagnosis, for the points are blackish, and pressure forces out a plug of sebum, thus serving to distinguish the trouble from powder or tattoo marks, which are blue.

Treatment should be directed to the general condition in the first place. As constipation is the most frequent complication, it may be well to give an occasional dose of calomel, and Duhring's acid aperient mixture. A compound hepatic pill

(O-D) at bed-time will also act as a good aperient to bring about a regular action of the bowels.

Locally stimulants are indicated. Force out the contents of

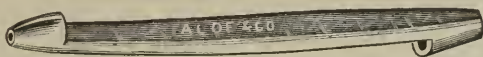


Fig. 17.—Author's Comedo Extractor.

each comedo with an extractor every day, then apply hot water (110° F.) followed by the following ointment:

℞ Sulphuris loti.....	℥ss—℥i.
Hydrargyri oleatis (5 per cent.).....	℥ss.
Ung. aquæ rosæ.....	℥i.
M. Sig. Apply at night.	

The following ointment, thoroughly rubbed in, will be found efficient in many cases if used after the hot water application:

℞ Resorcini.....	gr. xii.
Ung. aquæ rosæ.....	℥i.
M. Sig. Apply morning and night.	

When the comedones are small and in large numbers, the following is a good application:

℞ Acidi acetici dil.....	℥i.
Glycerini puriss.....	℥ii.
Kaolini.....	℥iij.
M. Sig. Apply at night.	

The resorcin ointment mentioned above is also very efficient, and in these cases the previous application of hot water is not necessary.

It is not necessary to mention here the stimulating ointments which may be used with benefit. Sapo viridis, followed by a bland ointment, may be employed.

Comedo is essentially chronic in its nature, but tends to heal spontaneously, generally disappearing at about the twenty-sixth year or a little later.

MILIUM.

Syn.—Grutum, Acne Albida, Strophulus Albidus, Pearly Tubercles.

Milium is a common affection of the sebaceous glands, appearing as roundish, millet-seed sized, white papules, occurring for the most part about the eyelids and malar eminences. (See Plate II.) The milia are generally opaque, and are not accompanied by any subjective symptoms.

The lesion is essentially a retention cyst, the sebaceous contents of the gland forming a hard, round mass, the duct closing and the epidermis becoming very thin. The contents, at times, although rarely, undergo calcareous degeneration and form *dermatoliths* (cutaneous calculi). Milium increases but slightly, and then seems to be at a standstill. It is essentially a non-irritating retention cyst, which simply produces a bad cosmetic effect. It seems to occur most frequently in females in early years, and may be distributed over the entire face. There seems to exist no adequate cause explanatory of its origin.

Milium is entirely local in character, easily recognized and very amenable to treatment. External applications are of no avail in its treatment. The cyst should be emptied and its lining membrane destroyed. To accomplish this, the papule is cut open with a milium needle and the cyst wall scraped with a small, sharp spoon, or with the convex edge of the needle. It is best, after performing this little operation, to touch the denuded surface with a little cam-

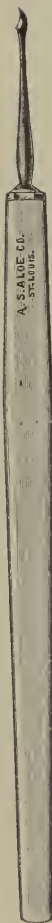


Fig. 18.—Author's Milium Needle.



MILIUM.

pho-phenique, so as to promote rapid healing. Instead of this scraping, some irritating fluid, such as tincture of iodine, nitrate of silver, caustic potassa or carbolic acid, may be introduced. Finally we have the electrolytic method, which is rapid and effective, although it is a tedious treatment.

Any of the above measures, properly carried out, will cause the permanent disappearance of milia.

SEBACEOUS CYST.

Syn.—Atheroma, Wen, Steatoma, Sebaceous Tumor, Follicular Tumor.

The lesions in this trouble vary in size from a split-pea to a small egg, being rounded, hemispherical, or semi-globular, having a soft, doughy feel. The skin covering this form of cyst is either normal or thinned and shining. The scalp, face, nucha, back and genitalia are the localities most frequently affected. This is a retention cyst, filled with sebaceous material or more or less liquid contents composed of broken down cells, debris and fat. As a rule, the duct of the sebaceous gland, from which the cyst originated, is closed; but this is not invariably the case, for it is merely partially occluded in some cases and persists. When occurring upon the scalp the cyst is not covered by hair.

Generally there is but one cyst, and it occurs in preference in old persons; adults being also subject to it. Occasionally, however, a number may be found. It is benign, unless ulceration, which may assume a malignant character, sets in.

The treatment is purely surgical, electrolysis having also been successfully employed. Care must be taken to destroy the sac. In small sebaceous cysts the following, applied twice daily, sometimes causes their disappearance:

℞	Ammonii sulphichthyolat	3iss.
	Lanolini puriss	3i.
M.		

The cysts have a tendency to enlarge unless removed. They are generally a source of annoyance to patients, on account of their location. They may become dangerous, especially when located upon the scalp. External irritation is apt to set in, ulceration follow and a fatal erysipelas supervene. For this reason extirpation of the cyst is always advisable.

HYPERIDROSIS.

Syn.—Ephidrosis, Sudatoria, Idrosis.

As its name implies, this disease is a functional disorder of the coil glands, characterized by excessive sweating, either local or general. It depends upon some disturbance of the vaso-motor system of nerves. It is a common affection and, in summer or in exposure to other sources of heat, it is merely an intensification of a normal function.

It may be transitory or permanent; or symptomatic of fever or of some other systemic disturbance.

The form we are to consider more particularly is the local, permanent hyperidrosis. The parts most liable to be the subject of this disturbance are the pudenda, perineum, axillæ and soles of the feet; the scalp and the palms of the hands being also frequently implicated. The skin assumes a pinkish hue, and appears sodden, the horny layer peeling off easily, through maceration. Pressure upon the parts produces pain, in marked cases. The cause of hyperidrosis is without doubt located in the nervous system. It is a functional disturbance of the sympathetic ganglia in all probability, and for this reason attention should be directed to it in the way of general medication. Such remedies should be used as the condition demands, but it may be stated in general terms that nerve roborants are always in order. The compound syrup of hypophosphites with strychnia and malt before or during meals is of the highest value. Arsenauro taken directly after meals will accentuate the action and aid very much in the amelioration of the parietic condition of the coil glands which is so prominently displayed in hyperidrosis. In addition to this, such general hygienic measures as may be available will act as valuable adjuvants.

Locally, in mild cases, frequent washings, followed by astringent lotions or powders, are sufficient. Among the astringents which may be used are catechu, tannin, alum, zinc sulphate, etc. For instance :

Rx	Acidi tannici	℥ss.
	Tinct. catechu	℥i.
	Alcoholis	℥vij.
M.	Use as a lotion.	

Weak solutions of permanganate of potassium, or of chloral hydrate are also beneficial. A very good application is a one per cent. solution of chromic acid, or, if necessary, a stronger one. After using a lotion, a dusting powder should be freely applied. This may consist of talc, French chalk, magnesia, oxide of zinc, or bismuth subnitrate. By adding salicylic acid, a scruple to the ounce, the good effects will be enhanced. A good astringent dusting powder may be made after the following formula :

Rx	Acidi salicylic	℥j.
	Talc. Veneti.	
	Magnesiæ carbonatæ	aa, ℥ij
	Cretæ albæ	℥ss.
M.	Sig. To be freely dusted on.	

The form of hyperidrosis for which relief is most often sought is that affecting the feet. It is perhaps also the most difficult to relieve. If any of the methods given above fail to produce the required effect there are means still left, some of which will prove successful, if persisted in.

Thus, the daily application of a two per cent. salicylated mutton suet; painting the affected parts once every four or six weeks with a five per cent. solution of chromic acid; applying subnitrate of bismuth liberally twice a day, without any further washing than that before the beginning of the treatment; bathing the feet in tar-water and then applying a solution of persulphate of iron morning and evening, have all produced successful results in the hands of competent observers. The emplastrum diachyli renewed every second or third day will give good results in many cases; a belladonna or salicylic acid plaster will act in the same manner. Carbolic acid lotions, beta naphthol in alcohol, boric acid in saturated solution, and corrosive sublimate solutions of varying strength are external applications employed in this affection with a fair degree of success.

Hebra's method, which is the best, perhaps, is as follows: The feet are washed, and dried with a dusting powder. Then the soles and toes are covered snugly with pieces of cloth upon which has been spread, to the thickness of a knife-blade, Hebra's diachylon ointments. This application is to be made in twenty-four hours at least, the feet not being washed, but simply wiped dry with a soft cloth and dusting powder applied. In ten to fifteen days dusting powders only are used. If a relapse occurs the same course of treatment is repeated. It may be necessary to resort to several courses of this treatment; but it will be noted that after each one a notable improvement has taken place. The method is applicable to any region which is not hairy.

The prognosis of hyperidrosis, especially of the local form, should be guarded. In old cases, more especially affecting the feet, the disease is very obstinate.

ANIDROSIS.

Syn.—Hypohidrosis.

This disorder is characterized by a diminished amount, or total absence of the sweat secretion. It is generally symptomatic and an accompaniment of some other trouble. When it exists independently the skin is dry, harsh, parchment-like, with a tendency to the formation of scales. In this form it depends upon a deficiency in the development, number, or function of the sweat glands. Anidrosis exists in chronic skin diseases, such as ichthyosis, psoriasis, lepra, etc., and in certain of the neuroses, as well as in diabetes insipidus and mellitus. When symptomatic the treatment of the causative disease is, of course, indicated. The treatment, in the variety which is not symptomatic, is tonics, Turkish, hot or steam baths followed by massage of the skin. As in the case of hyperidrosis measures looking to the nervous system must be taken. It is necessary not only to stimulate the nerves by internal measures, but by external means as well. The functions of imperfectly developed glands must be artificially increased so as to bring about a development, if possible. If there be areas which lack coil glands nothing can be done beyond adding to the pliability, softness and suppleness of the skin by aiding the sebaceous glands in their efforts in this direction. In general, there is very little to be done of a permanent nature.

BROMIDROSIS.

Syn.—Stinking Sweat, Osmidrosis.

In this disorder the condition is a qualitative disturbance of the sweat function. It is characterized by a heavy, penetrating, offensive odor, and may be either local or general, most frequently the former. It is seen more particularly in those whose complexion is dark, and in negroes. The greater the amount of perspiration the more intense the odor. While symptomatic of some diseases, it is, as a rule, idiopathic and local. The portions most often implicated are the axillæ, the genitalia, the perineum and the feet. The last especially emanate a most foul odor. It is so fetid as to make the life of the patient a burden, and cases are known in which relief was sought in a suicide's grave. Males are more often affected than females. It may appear at puberty or later in life. Hyperidrosis is usually an accompaniment.

The diagnosis is easily made. The disease may be temporarily due to filth and negligence, but it occurs in those who are unexceptionally clean, and Mr. Thin claims that it is caused by the bacterium fetidum, but numerous other micro-organisms are found. There is no doubt whatever that the decomposition of various fats greatly aids in intensifying the smell, and the fact that the affected parts are more or less enclosed in confining coverings also contributes to the intensification of this symptom.

The treatment is the same as that for hyperidrosis, with the exception of previously washing the affected parts in some disinfectant. For this there may be employed solutions of permanganate of potassium, corrosive sublimate, chloride or sulphate of zinc, all possessing the advantage of being odorless. Solutions of chloral hydrate are also said to act well. Trikresol is

an agent which acts in a most excellent manner, being an efficient bactericide and a mild stimulant to the skin.

In obstinate cases much patience is required in order to obtain relief and energetic measures, in the form of strong antiseptics, may be necessary. A case should not be regarded as beyond relief, after using one or two methods, but recourse should be had to such agents as the demands of the case may indicate, and persistent effort will meet with a certain degree of success, if not complete cure.

CHROMIDROSIS.

Syn.—Colored Sweat.

Colored sweat is rarely observed. It may be yellow, red, brown, black, green or blue (cyanidrosis). It may be generalized or localized. The majority of cases which are looked upon as chromidrosis are really not such, but depend upon malingering in the subject. The genuine cases which have been observed occur in women who are hysterical, anemic, or who have menstrual disorders. Men have also been observed to suffer from chromidrosis, but in them the disease is of a transitory nature, and usually disappears spontaneously. Red sweat is due to the bacillus prodigiosum, most probably, and is of a superficial nature. The treatment should be general, and, where micro-organisms are found, locally antiseptic.

HEMATIDROSIS, or bloody sweat, is almost always a purely neurotic phenomenon, and is to be carefully distinguished from hemorrhage of the skin. It is not an oozing of the blood, but rather the appearance of sweat containing the coloring elements of the blood. It is always indicative of a marked lowered vitality, and the prognosis is bad, so far as the general condition is concerned. However, it is rarely observed.

URIDROSIS, or urinous sweat, is more frequently seen as a symptom of grave maladies. It occurs most frequently in connection with uremic poisoning, although it is also observed in cases of acute rheumatism, in which strong sudorifics are administered. The sweat, in such instances, is heavily charged with uric acid, and emits a marked and distinct urinous odor. It is so powerful at times as to necessitate the free ventilation of the apartment in which the patient lies.

PHOSPHORIDROSIS, or phosphorescent sweat, is looked upon much in the light of a curiosity. It can only be observed in the

dark, and the body of one so affected emits a faint phosphorescence or luminous appearance. The few who have observed this curious phenomenon unite in saying that it occurred in phthisical patients who are far advanced in the disease.

SUDAMINA.

Syn.—Miliaria Crystallina.

This affection is a functional disorder of the sweat glands manifesting itself as closely grouped vesicles having a whitish, translucent or pearl-colored appearance, and of the size of a millet-seed. They may become confluent. The back, chest, abdomen, extremities and limbs may be attacked, the face being exempt, as a rule. The part most frequently attacked in our latitude is the integument on the sides of the fingers, slightly encroaching on the dorsum. The toes are very apt to be attacked simultaneously, and be affected in a corresponding manner. The contents become absorbed in a few days, and a mild desquamation follows. There are no inflammatory symptoms or subjective sensations observed.

It occurs in the old and young, but more especially in those of weakened constitution. Sudamina depends upon an unusual activity in the secretion of sweat, which becomes so great that it cannot reach the surface rapidly enough, and getting between the layers of the stratum corneum, raises it up in the form of vesicles.

The diagnosis is easily made. The treatment should be directed to the prevention of a recurrence. One of the best means is the application twice a day of a two per cent. solution of chromic acid. This effectually counteracts the pressure of the sweat and relapses are prevented. The vesicles should not be opened, and all precautions taken to prevent excessive perspiration.

CLASS II.—HYPEREMIAS.

In this class of diseases we have the presence of an excess of blood in the vessels and capillaries. There are two principal varieties of hyperemia of the skin—active and passive. In the former there is an increased redness which is bright in color, heightened temperature, these being due to an increased arterial flow; in the latter there is a bluish color manifest, and lowered or normal temperature due to a retarded flow of venous blood. This is the appearance denominated lividity. Either condition may be idiopathic or symptomatic. The idiopathic forms alone will be considered here, as the symptomatic properly appertain to the general practice and theory of medicine.

ERYTHEMA SIMPLEX.

In this condition we have a heightened color of the skin involving more or less surface and disappearing under slight pressure. There is also an increase of temperature. The causes, in general, are heat, cold, injuries, mechanical, poisonous or chemical agents, which are irritating in nature or by reason of the circumstances under which they exercise their influence. General disease or visceral complications produce symptomatic erythema. The idiopathic variety is divided into three principal classes, depending upon the cause—caloric, traumatic and chemical.

Erythema caloricum is quite a common form, due to the action of heat or cold. It is accentuated by exercise when it is due to heat, and the want of exercise makes it more prominent when cold is its cause. The susceptibility of the skin is an important factor in the rapidity of development, as well as the severity of the attack in this as well as the other varieties of erythema which are observed. If the causative process attain any

degree of permanency, or if it continue for a certain length of time, inflammation is very apt to supervene.

Erythema traumaticum is also common. It is due to pressure or rubbing, such as is produced by bandages, trusses, garters, suspenders, etc. The friction of clothing or resting a part heavily against some solid body also produces it. Any mechanical pressure or friction acts directly upon controlling nerves of the bloodvessels and, as a direct result of this stimulation, an increased flow of blood takes place.

Erythema venenatum is caused by a large number of mineral and vegetable substances. Acids, alkalies, the anilines, mustard, arnica, turpentine, sulphur, mercurial preparations, the various counter-irritants and epispastics, etc., produce it, many being employed with that object in view. As a rule but very little attention is paid to simple erythema when it first makes its appearance. Its persistence may arouse some solicitude but, as it has a tendency to spontaneous recovery, very few cases apply for treatment.

The symptomatic hyperemias depend upon some internal cause, and are the result of derangements produced by diseases or drugs.

The only efficient treatment is to remove the cause and if marked local irritation be present some bland dusting powder or soothing ointment should be applied. A powder is principally indicated in erythema traumaticum, and for such cases the following will be found a good formula :

℞ Zinci oleatis,
Magnesiæ carbonat.....aa, ʒij.
M. Sig. Apply liberally to the affected part.

In erythema venenatum, due to acids, an alkaline lotion is first applied and then an ointment composed as follows :

℞ Bismuth subnitratʒj.
Morphiæ sulphatgr. v.
Ung. aquæ rosæʒj.
M.

Should an alkali be the cause, a mild acid followed by the same ointment will be found efficient.

So far as other chemical and medicinal causative agents are concerned, the same plan of procedure should be followed.

All the erythemata require a great deal of discrimination in their treatment. The management very often is of much more importance than simply medication. It must never be forgotten that the most important part of the treatment depends upon a proper appreciation of the cause.

ERYTHEMA INTERTRIGO.

Syn.—Chafe.

This disorder is simply a hyperemia in which we find the skin hot, red, more or less excoriated, and the upper layers of the stratum corneum macerated. It occurs where the folds of the skin are largest, or where the skin is subjected to a great deal of friction. For this reason, the neck, the internatal cleft, the perineum, the submammary fold, the axillæ, the abdominal folds, the scroto-crural fold, etc., are the portions most frequently affected. The subjective symptoms consist of heat accompanied by more or less pain. When the disease is severe, a viscid, mucoid secretion is poured out. In addition to this the rete mucosum is apt to become exposed at certain points, and minute drops of blood will exude, a disagreeable and apparently very severe appearance, out of all proportion to the real state of affairs, being present. If this be permitted to go on, a dermatitis or eczema quickly supervenes.

This disease is much more common in Summer than in Winter, being observed principally in infants and fleshy adults. Among the exciting causes are prolonged walking, or other exercise, or work, excessive or irritating underclothing, want of cleanliness, acrid secretions or foul deposits, and the friction of opposing surfaces of the skin.

The diagnosis is easily made, except in aggravated cases, when it should be guarded, as the space of a day may show the trouble to have been transposed into an eczema or a dermatitis.

The treatment of erythema intertrigo is simple, but depends for its efficiency upon being faithfully carried out. In mild cases a simple dusting powder should be liberally applied, such as:

- ℞ Pulv. zinci oxidi,
 Pulv. cretæ prec.aa, ʒi.
 Talci veneti,
 Natri bicarbonat.....aa, ʒij.
 M. Ft. Pulvis.

Or the dusting powder mentioned in connection with erythema simplex would act well. It should never be forgotten that the ingredients of this powder should be of mineral and not of vegetable origin. Starch and lycopodium, as well as the bland powders of the same kind, are easily affected by the fluids which occur in intertrigo. As a result, fermentation sets in, and the trouble is aggravated instead of being improved.

This should be applied two or three times daily after washing the parts in cool water.

Where we have a raw, excoriated condition, accompanied by a thick, glutinous discharge, there should be a thorough cleansing of the part, followed by an astringent or slightly stimulating lotion, such as lotio nigra (diluted). Then apply over this a soft cloth on which has been spread a soothing ointment of which the following is an example:

- ℞ Zinci oxidi.....ʒss.
 Pulv. camphoræ.....ʒj.
 Ung. aquæ rosæ.....ʒj.
 M.

An ointment of this description soothes and acts also as a protective dressing.

Erythema intertrigo is easily amenable to proper treatment, but prophylactic measures must be observed, as it is prone to relapses, or to assume an inflammatory nature.

ROSEOLA.

Syn.—Red Rash.

The term roseola has been applied to erythematous macules which have a sharply defined border and which may vary in color from a light rosy hue to a dusky red. The size of these macules varies from that of the finger nail to areas as large as the palm of the hand, or even larger. As a rule the integument over the flexor surfaces is more prone to exhibit the eruption than that on the extensor aspects.

The mode of onset is rapid, occupying but a very short period of time. Not only this, but new lesions will continue to appear at varying intervals until large portions of the integument, or even the whole of it is involved in the process. Occasionally the macules will coalesce.

The trouble is entirely a symptomatic one; caused either by some general disease, or by the ingestion of medicaments or other substances of a nature irritative to the individual affected. Thus we find that in typhoid fever roseola manifests itself, as also in syphilis and in leprosy. In the algid stage of cholera it appears, and is seen in diphtheria. It is not infrequently observed in malaria, when it is known as roseola febrilis. Copaiba, turpentine and the balsams, in general, are a cause. It must not be forgotten that nervous excitement may also cause its appearance.

Its duration, or the modifications which it may undergo, are entirely dependent upon the cause producing it, and this governs the treatment as well. Discontinuing a drug which produces it, will result in its disappearance. If a disease be the cause, recovery from its effects, or a change in the process will result in a disappearance of the roseola.

ERYTHEMA SCARLATINIFORME.

This form of trouble derives its name from the circumstance that it first manifests itself as a marked scarlet erythema involving large areas of integument. After the erythema has existed for some little time desquamation of a marked character takes place. It is of such a severe character that, in some cases, gloves and mocassins of epidermis are shed, leaving an angry red, glazed surface, which rapidly recovers its covering of horny cells.

The trouble is an unusual one, and is much more formidable in appearance than in reality. It is prone to relapses, and should not be confounded with scarlatina, which it closely resembles in some respects. The fever which is observed, and the lack of involvement of the mucous membranes, as well as other prominent general symptoms of scarlatina should lead a careful observer to make a correct diagnosis.

The cause of the affection is not yet well understood. It has been observed in connection with enteric fever, typhoid fever and similar conditions. It has also been seen to follow the administration of certain remedies, chiefly quinine. On the other hand, idiopathic cases occur and recur without an adequate cause to explain the matter, unless we assume that there exists a neurotic basis for the changes.

The treatment should be of a sedative character so far as general medication is concerned, and soothing locally. Ointments are best used, as they promote the reparative process better than other forms of application.

CLASS III.—INFLAMMATIONS.

The inflammatory, or exudative diseases of the skin form by far the largest, as well as the most important class. The diseases are, apparently, of the most diverse character, both in appearance and in subjective manifestations, and, while this is true, they still are classified under one head. For, from a pathological point of view, they are all involved in the same general process—inflammation. The degree of the process differs in different diseases, from an involvement of the superficial layers only of the skin, to those in which not only the entire skin, but the subcutaneous tissues are also implicated. Some of the diseases are acute and of short duration, healing spontaneously; others, and these constitute the majority, soon become chronic and are not easily amenable to treatment. Again, some are benign in their course, occasioning little or no trouble, whereas others are a source of constant pain. The objective symptoms vary greatly in the different diseases, almost all the lesions being represented. The causes which lead to these inflammatory affections are most diverse in nature, not only for the different diseases, but even in different examples of the same one. The treatment is also of the most diverse in character, and demands much discrimination, being largely guided by the condition which is present. It is mainly a lack of judgment as to the proper application of certain remedies which has brought them into disrepute and causes them to be still upheld by a few.

The prognosis of these diseases is, with a few exceptions, generally of a favorable nature.

ERYTHEMA MULTIFORME.

This is a polymorphous erythema in which papules, tubercles or vesicles may appear. The trouble manifests itself in large patches, the ground color of which may be somewhat variegated. The form of these patches is usually roundish or ovalish, the oval areas being, at times, rather prolonged, but their long diameters being parallel to the vertical axis of the body. It is generally of a severe type, malaise and fever accompanying it, the hands, forearms, backs of the feet and thighs, being most often affected. Other portions of the integument are also occasionally the seat of the trouble. It sometimes assumes the form of an annular lesion, the patch being formed of more or less well-formed concentric rings of different colors. Relapses are frequent, the duration of the process lasting several weeks. General treatment, such as is indicated by the symptoms, is necessary. Febrile conditions, rheumatoid and other complications, demand attention. Locally, astringent lotions and protective powders. A good lotion to apply is the lotio calaminæ. Listerine is also a good application. The latter, however, should be followed by an application of a dusting powder containing precipitated chalk.

Erythema papulatum, *e. tuberosum*, *e. vesiculosum*, are varieties of the above. These names have been applied to those forms in which a particular lesion predominates or is found alone. *Erythema iris* and *e. marginatum* are names applied to particular forms and do not indicate particular varieties.

ERYTHEMA NODOSUM.*Syn.*—Dermatitis Contusiformis.

This affection appears at first as erythematous patches of a rosy tinge about the size of the finger nail and of quite a delicate hue. This eruption may appear about the shoulders, back, chest, arms and neck. It also occurs on the lower limbs, most often over the tibiæ. In this last locality it soon changes in form and the lesions assume a node-like aspect. Burning and pain upon pressure are the principal subjective sensations, rheumatoid pains being also felt. In a short time the reddish color changes to yellowish, greenish, etc., as observed in contusions. Successive crops may appear, each one lasting a week or ten days. It may be mistaken for a bruise, or for syphilitic nodes, when occurring over the tibiæ. To prevent relapses internal treatment should be given and the last consists of salines, alkalies and anti-rheumatics. One of the best combinations of these is such a one as will combine the two latter. Lithia potash water is a pleasant form of this combination, and valuable as well. Locally, but little treatment is needed. Astringent and cooling lotions are all that is necessary. An efficient formula will be found as follows:

R	Menthol.....	5j.
	Aluminis.....	gr.vj.
	Aquæ.....	5vj.

M. Sig. Apply frequently to affected part.

URTICARIA.

Syn.—Nettle Rash, Hives, Cnidosis, Febris Urticata.

This disease is one of frequent occurrence. It is characterized by a sudden eruption of wheals of various sizes and varying in number, which are either paler than the normal skin, or reddish. (See Plate III) After a variable length of time these lesions disappear as suddenly as they came. Burning or pricking and itching accompany the eruption and scratching is apt to cause it to extend. In the acute form, attacks occur only when produced by some exciting cause and they are evanescent. When chronic, urticaria recurs again and again and the wheals have a tendency to persist.

There are several varieties which are infrequent. *Urticaria pigmentosa* is that form which is followed by persistent pigmentation. In *urticaria papulosa* we have the formation of papules taking place. When the wheals assume an enormous size we have *urticaria tuberosa* or *giant urticaria*.

The diagnosis is comparatively easy. Where wheals exist, which are the result of insect bites, the central hemorrhagic point will reveal the cause.

The causes of urticaria are external and internal. The former are those agents which act as direct irritants to the skin. The latter are such as act from within. Among external causes may be mentioned chemical and mechanical agents. In the latter, drawing a blunt object, or forcibly applying the hand or some similar pressure, will cause the appearance of wheals corresponding to the exciting cause. *Dermographism* is a phase of this. Among internal causes are febrile disturbances; certain articles of food, such as shell-fish, mussels, oysters, clams, cheese, strawberries, etc.; certain drugs, such as balsam copaiba, oil of



URTICARIA.

turpentine, etc., and moral causes, such as fright, anger, grief. Disturbances of the genito-urinary, respiratory or digestive apparatus may also act as causes.

This disease is probably a reflex vaso-motor disturbance, resulting in a sudden, circumscribed exudation, which is reabsorbed; or, the result of an irritation of the peripheral nerves.

The treatment of acute urticaria is expectant. Sometimes an emetic will cut short an attack, and to prevent a recurrence a saline laxative should be administered. The internal exciting cause should always receive attention. Atropine in one-sixtieth grain doses will be found beneficial in aborting attacks. This can be given twice daily, and its effects should be closely watched. Hydrobromate of quinia, in three-grain doses, twice daily, and salicylic acid, not to exceed seventy-five grains in a day, are also given with success. In the chronic form gastric disturbance should receive particular attention. Seng, in teaspoonful doses, will act well.

For local use, to allay the itching and irritation, cold water, hot water, vinegar, whisky, dilute or pure alcohol, solution of carbolic or of salicylic acid, solution of chloral, or ointments containing sedatives, may be used. Peppermint water, cherry-laurel water, or a mixture containing chloral hydrate and morphine act well. In fact, any application containing a sedative will be beneficial.

ECZEMA.

Syn.—Salt Rheum, Moist Tetter, Scall, Milk Crust.

This multiform skin disease is the most frequently met with, constituting about one-third of all cases applying for treatment. The great number of varieties which have been made by different writers has only served to confuse the subject, which, at best, is a difficult one in the consideration of the principles involved. We have here to deal with an inflammation, and, as in other portions of the body, we have all the classical symptoms of that process present. In addition, multiform lesions appear, and a subjective symptom, which is in the highest degree distressing—itching. It is of the utmost importance that a proper conception of this disease be acquired, as it is, in the language of an eminent dermatologist, the “keystone” of dermatology. It is impossible in a work of such limited scope as the present one, to give more than a bare outline of the principal points connected with the subject.

Clinically, there are several types of eczema, each one, however, having variations. This must not be forgotten, as these types are but different stages of the disease.

There are six general symptoms observed in eczema which it is well to remember: 1° Itching, tingling, or burning pains; 2° Redness; 3° Erythema, papules, vesicles, pustules, or exudation; 4° Crusting and scaling; 5° Infiltration, thickening; 6° Fissures.

Eczema erythematosum is a form of the disease in which the skin is red, hot, and exhibits some swelling. A moderate amount of itching is also present. This form may continue until it becomes chronic, or it may lapse into some other type. It occurs in middle life and old age, although sometimes observed



ACUTE ECZEMA.

in youth, is symmetrical, and most often involves the face. It may involve a large or small extent of surface. Sometimes small papules are observed in connection with it.

Eczema papulosum (Plate IV) is characterized by a papular eruption with, occasionally, a few vesicles. It may exist alone or combined with the former type. The papules have a dark red color, and frequently a little crust of blood crowns the apex, the result of scratching.

Eczema vesiculosum is generally acute and a typical case is rarely seen. When it is seen the vesicles have broken down and the surface presented is moist, and thickened patches show themselves.

Eczema pustulosum should present marked pustules: but, as a rule, they soon break down, leading to the formation of crusts of a yellowish color. While the itching, as in the vesicular type, is not marked, it is frequently intensely painful, and the consequent scratching leads to the destruction of the lesions.

Eczema rubrum, or eczema madidans, presents a red and angry appearance, exudation being quite abundant. It is caused by a loss of epidermis, following an acute or chronic process. The exudation generally forms crusts at different points.

Eczema squamosum is characterized by a constant shedding of rather thin scales, from an erythematous surface. In some cases the scales are rather thick and adherent. Itching is marked in this form.

Eczema fissum is generally a result of the preceding, the fissures occurring about the flexures of joints penetrating to and deep into the rete Malpighii. These fissures are exceedingly painful, especially when irritants find their way into them. The fold of the elbow is particularly prone to this form, not to mention the palms and soles.

Eczema sclerosum is observed chiefly about the palms and soles and finger tips, in which a degree of thickening of the skin takes place.

Eczema intertrigo and *eczema verrucosum* relate to forms of the disease, the names readily suggesting the appearance.

The stages of eczema may be divided into acute, subacute and chronic.

Acute eczema may or may not have prodromata. The skin becomes red, hot and edematous, the degree of this latter varying with the amount of subcutaneous tissue in the part attacked. In a very short time, papules or vesicles may appear or the epidermis may become denuded. In some cases it remains erythematous. In this form of eczema it is frequently difficult to

distinguish it from intertrigo or from dermatitis. Protection will frequently bring about a return to the normal.

Subacute eczema, while not presenting the intense inflammatory symptoms observed in the foregoing, is attended by moderate pain, itching and thickening of the skin. (See Plate V.) In addition, more or less exudation, with the formation of crusts, occurs.

Chronic eczema (Plate VI) is marked by a tendency to recur and to persist. Itching is generally intense, although absent in some varieties. Crusts and scales are present and exacerbations of an acute character occasionally take place. Fissures show themselves and, at times, the skin merely appears tense, red and shining, or rough, thickened and with more or less crusts.

Eczema is found at all ages and in both sexes. It is not contagious nor inherited, although a condition predisposing to its development seems to be transmitted from one generation to another. Two classes of causes are recognized in this disease: local or external, and general or internal. Any agency which will irritate the skin, whether it be frictional, traumatic, chemical or toxic, may call eczema into being.

The constitutional causes are such as produce defective assimilation, or debility, and have been classified broadly as the gouty, the strumous, and the neurotic conditions. The first, including the "rheumatic" of some authors, is perhaps the most common of the internal causes, and by directing attention to this a marked beneficial effect is soon observed. Among causes not generally mentioned by authors, is the influence of certain micro-organisms which primarily produce an irritation causing a subsequent eczema in those predisposed to it. Air and water are also active agents in the production of this disease, as well as in its continuance.

A consideration of the forms of eczema, attacking the different organs of the body, is perhaps the best and simplest mode of dealing with this complicated subject. Only such general notions in regard to treatment can be given as will serve for general guides. It is only in works especially devoted to the consideration of this disease that details can be given. They should be carefully studied, as eczema, as has been stated, is the "key-stone of dermatology," and a thorough knowledge of its symptoms and treatment ensures an equal acquaintance with the other diseases incident to the integument.

Eczema of the face and scalp.—In infants and children it is the pustular form which is most often encountered in these local-



SURACUTE ECZEMA.



CHRONIC ECZEMA.

ities; in adults, the erythematous and squamous, the papular being seen in both.

In eczema of the *eyelids* we have the thickened edges, red, and exuding a viscid material which glues the lashes together. It is often necessary to employ constitutional measures in addition to the local application of soothing ointments.

Eczema of the *lips* may exist alone, affecting the skin or involving the vermillion border, or the commissures. It is generally rebellious to treatment, involvement of the upper lip depending upon nasal discharges. In adults, the lips sometimes fissure and become dry. In the latter cases, gastric derangements are generally the cause and should receive attention.

Eczema of the *ears* is frequent in children, and involves the entire auricle, or external auditory canal. The ears become thickened, swollen and painful, and, later on, moist, crusty and itchy. Behind the ear, the most frequent site in adults, it persists and causes fissures to appear.

Eczema of the *scalp* assumes three principal forms: the pustular, moist exuding, and dry scaly. In infants and children it is the first which is most often seen. The pustules soon burst and crusts are formed which mat the hair, and underneath a moist, reddened, irritable surface exists. In infants it frequently assumes the form of a yellowish crust, covering the vertex and of considerable thickness, popularly known as "milk crust." It sometimes passes on to the moist exuding, which is the form seen in adults, although not so frequently in the latter as the dry scaly. The itching is marked in all three varieties, and in the two former some pain is also present.

Eczema of the *face* is pustular in children and erythematous or papular in adults. In the former crusts soon form, generally about the cheeks, invading the ears, and in the latter the forehead, nose, eyelids, and cheeks are also involved. In the erythematous form thick ridges occur over the forehead, at the root of the nose, on the cheeks, etc., giving a leonine appearance and saturnine expression.

Eczema of the *hands and arms*.—Eczema of the *hands* is generally chronic. Sometimes it is acute, and then it presents itself most frequently upon the dorsum and extends to the fingers. In the subacute or chronic state it is somewhat different in appearance from the condition presented in the acute form, which is erythematous and papular as a rule. In the chronic state we have a dry, hard, thickened skin found most frequently upon the palms, having a tendency to scale and very liable to fissure at the natural folds. Owing to the exposure of these parts to exter-

nal irritative influences the condition is very rebellious to treatment. Eczema of the *arms* exhibits about the same characteristics as upon the integument in general. At the bend of the elbow, however, it frequently becomes squamous, and fissures are very apt to occur.

Eczema of the *feet and legs*.—In these localities the tendency of the disease is to become chronic in a very short time. Eczema of the *feet* in its general characteristics is similar to that of the hands. Sometimes the eruption is vesicular about the toes. In eczema of the *legs* we have a condition generally assuming the form of eczema rubrum. Occasionally it is dry, shiny, and here the itching is always more or less intense. The disadvantageous conditions of circulation tend to render the affection stubborn in this locality and to lead to the formation of ulcers. A papular form is not infrequent on these extremities.

Eczema of the *anus and genital regions*.—In these places we have a localization of eczema which is, in the highest degree, distressing. There may be but a very slight eruption, or a raw exuding surface, accompanied by marked thickening of the skin, may manifest itself. The scrotum is particularly prone to an erythematous form with pronounced thickening of the integument.

Eczema of the *trunk*.—The trunk is sometimes invaded in its entirety, the form being erythematous or papular, sometimes squamous to a certain degree. The opposing surfaces of the trunk and *mammæ* in the females are affected by a moist, raw form, and the *nipple* by a thickened fissured variety. At the *umbilicus* we have an exuding form, and in the *axillæ* a similar condition. In those who are stout the folds about the neck or abdomen and other parts are affected by an exuding raw condition, which itches intensely.

Universal eczema.—This condition is one which generally shows a depressed condition of the whole system. It is very distressing and rebellious to treatment. It begins as an erythematous eczema, but has tendencies to assume a more or less squamous form in those localities which are prone to assume a scaly process. It is seen in those who are adults or past that period of life. In this form the itching is marked and sometimes so intense as to be unbearable.

Infantile eczema.—Nearly all cases of eczema occurring in children under five years of age, are classified under this general head. In these the disease assumes an acute form, exudation and pustulation not being uncommon. Crusts and excoriations are generally present and the itching is intense.

The diagnosis of the various forms of eczema is, at times, a very difficult matter. Eczema of the face resembles erythema, acne rosacea, and erysipelas; in the beard it is similar to sycosis or tinea barbæ; upon the lips it simulates mucous patches, or herpes labialis. The pustular form occurring on the scalp might be mistaken for pediculosis, the pustular syphilide, or favus, and the scaly form looks like seborrhea, pityriasis, psoriasis, tinea tonsurans, and favus of long standing. On the dorsum of the hands it is sometimes similar to scabies, dysidrosis, lichen planus, or papular erythema; and on the palms (or soles) to psoriasis, or the squamous syphilide. On the legs, the ulcers resemble those due to varicose veins, or to syphilis. About the anus and genitals it might be confounded with tinea cruris, or pediculosis pubis, scabies or syphilides. The eczematous lesions of the trunk are sometimes of a form suggesting psoriasis, tinea, herpes zoster, syphilis, pityriasis rubra. When about the breast, it might be taken for scabies, epithelioma, or "Paget's disease." In the axillæ it frequently resembles tinea of that region.

The Treatment of this disease is perhaps no less difficult or important than the diagnosis. And it is not only the treatment, but the management as well, that is productive of a good result. The diet and hygienic conditions of the patient should be carefully looked after and, in a great measure, adapted to the general diseased condition. In all cases, it should be especially adapted to the individual, as each one is a law unto himself. Arsenic will not cure the disease. Generally attention to the bowels and stomach, alkalies, bitter tonics and nutritives that are easily assimilated, are of benefit. While fats are often of benefit, starches and sugars should be avoided, as well as alcoholics. Overfeeding should also be restrained, and, in some cases, "dieting" will be found of marked benefit.

Local treatment, while extremely various, so far as a choice of remedies is concerned, is based on general principles applicable to all diseases. In irritated, acute conditions, soothing applications are indicated; whereas, in chronic conditions, stimulating remedies should be used, or even irritants, if necessary. It should never be forgotten that air and water have a deleterious effect upon eczema. The latter is of benefit only when modified by some addition of a bland substance, and is of most use in the form of the continuous bath.

In the treatment of eczema of the face and scalp, soothing and astringent measures should be employed. Crusts should be removed by poultices or oils, preferably the latter, and tannin ointment applied, or one containing oxide of zinc and camphor.

Where the process is pustular, remove the crusts with oil and apply campho-phenique (pure) twice daily. Diachylon ointment (Hebra) to the face is very good, as also to the affected surface, after shaving the beard. Tar ointment occasionally acts well in the proportion of fifteen grains to a half-drachm to one ounce.

In eczema of the hands and arms, apply cooling lotions, followed by bland ointments, when the process is acute. In subacute cases, tar ointment, or one containing creasote acts well. In chronic forms, *sapo viridis*, followed by diachylon ointment. In eczema of the palms (and soles), touching the surface to hot water (110° F.) and subsequently wrapping in diachylon ointment, is one of the best methods. Avoid all contact with water; and, if absolutely necessary to wash, put borax or bicarbonate of soda in the water. A stimulating mercurial application is also indicated, at times.

Eczema of the legs is treated very much by means of the rubber bandage (Martin's) during the day, the surface being covered with a soothing ointment at night. The bandage must always be washed before being reapplied, and care taken that it does not produce additional irritation. A better method is to use twice daily the sol. antipruritic co. (O-D) immediately followed by this ointment:

R	Menthol	ʒij.
	Bismuthi subnitrat.....	ʒiv.
	Ung. aquæ rosæ.....	ʒiv.
M.		

In chronic cases, stimulating applications should be made, such as:

R	Picis liquidæ.....	ʒij.
	Potassæ causticæ.....	ʒj.
	Aquæ	ʒv.
M.		

This is diluted according to indications, and followed by some soothing application. Eczema of the feet should also be stimulated by tar ointment, followed by some soothing application. For the soles, the same treatment as for the palms.

The treatment of eczema of the anus and genitals is dependent for its success, in a great measure, upon internal and dietary management. Locally, a tar and zinc ointment is valuable, applying it after soaking the parts in hot water. Soothing pow-

ders are also good. The compound tincture of green soap, as follows, is a good stimulant:

℞	Olei cadini,	
	Saponis viridis,	
	Spts. vini rectificat	aa, ʒj.
M.	Filtra et adde:	
	Spts. lavendulæ.....	ʒij.
M.		

Of course, this should be followed by a soothing application. The condition of the bowels and kidneys should receive particular attention, and the presence of hemorrhoids, and fistula, and fissures, etc., should be determined and relieved, if necessary.

In eczema of the trunk, the treatment differs but little from that of other forms. In universal eczema, we have a condition to deal with which is serious, and requires tonics. Baths are serviceable here. Still the trouble is very rebellious, and frequently all the measures that can be devised do but little to ameliorate the condition. All efforts must be directed to reduce the thickening of the skin, and a most important point is to see to the perfect action of the emunctories. Locally, the best treatment is the continuous application of diachylon ointment, and internal remedies to allay the pruritus.

In infantile eczema, soothing applications are generally required, and the entire abstention from washing. Calomel is frequently necessary to evacuate the bowels, and is one of the best remedies for this purpose. Crusts should be removed, and a zinc or subnitrate of bismuth ointment applied to the local trouble. A little tannin added is sometimes of benefit. Often, when the trouble is about the body or extremities, the liberal use of a dusting powder containing some camphor is of value. The one great point to observe in connection with this form is to avoid overstimulation.

A variety of the disease which is not infrequently seen is the so-called *parasitic eczema*. It is generally characterized by a miliary papular eruption, which spreads very rapidly by extension. This is greatly aided by the scratching of the patient in his efforts to allay the itching, which is quite marked. If the process be permitted to go on untreated, extensive excoriations manifest themselves and superficial destruction of tissue occurs. To relieve the condition simple measures are amply sufficient.

The application two or three times daily of a six per cent. carbolic acid solution or of a one to 800 bichloride solution will, in the majority of cases, prove amply sufficient. Where a purulent process has occurred a preliminary wash with peroxide of hydrogen will prove a valuable adjuvant.

ECZEMA SEBORRHOICUM.

Syn.—Dermatitis Seborrhoica, Hydrosis Oleosa.

Seborrheic eczema is a disease whose place in nosology has not yet been definitely settled. It resembles seborrhea in some of its stages, and in others it closely simulates psoriasis. At its inception it appears in the form of a reddish macule, which is finger-nail in size. This becomes larger, several lesions coalescing and the patch assuming a roundish form. At other times a scaly lesion appears. It is characterized by fatty scales overlying a reddish base. The lesions are roundish or ovalish in shape, large or small, occurring for the most part on the scalp, trunk, over the sternum and between the scapulæ, and limbs. There is pronounced itching present, which is sometimes intolerable. It may be easily confounded with psoriasis. There is, however, a marked difference in the appearance of the scales. In psoriasis they are more silvery and glistening and there is not such a marked border. Moreover, there is no inflammatory areola such as is found in seborrheic eczema. In the latter the removal of the scales will not show the peculiar punctate bleeding seen in psoriasis. According to Unna it is essentially an inflammation of the secretory cells of the coil glands, and affects parts subject to hyperhidrosis and seborrhea.

The treatment is comparatively simple. If scales exist or if seborrhea be marked over the affected areas, *sapo viridis* is to be employed for the removal of these secondary products. If hyperemia or inflammation be acute a mildly stimulating ointment is indicated, and for this purpose the following may be employed:

℞ Sulfuris loti gr.xv.
 Lanolini,
 Ung. aquæ rosæ.....aa, ʒss.

M.

If the trouble is chronic a more stimulating application is indicated, such as :

Rx	Sulfuris loti	5j.
	Zinci oxidi	5ss.
	Ung. aquæ rosæ.....	5j.
M.		

The disease occurs at all ages and has a tendency to become chronic. Whilst treatment causes its rapid disappearance it is exceedingly prone to relapse.



HERPES SIMPLEX.

HERPES.

Syn.—Fever Blister, Cold Sore.

Herpes is an inflammatory disease, in which we have the occurrence of small groups of vesicles, of about the size of a hemp-seed, and situated upon a slightly reddened base. The grouping of vesicles is one of the peculiarities of all herpetic diseases. The patches vary in size, from that of the little finger nail to that of a silver half-dollar, and they are more or less roundish in shape. The portion of skin intervening may present here and there a few scattered vesicles, but there may be none. Where but a few vesicles exist in all, of course no definite grouping is to be expected. The vesicles may occur almost anywhere, but seem to have a predilection for the face and genitalia. The subjective symptoms are slight, and consist of a burning or tingling sensation. The trouble is self-limited, running its course in from seven to ten days, and leaves more or less pigmented macules. The two varieties commonly described are herpes facialis and herpes pro genitalis.

Herpes facialis generally attacks the lips (*h. labialis*) near the vermillion border (see Plate VII), the cheeks, the nose, the eyelids, the ears, etc. The vesicles frequently coalesce. In three to six days they dry up and form crusts which are adherent, but soon drop off spontaneously, leaving a reddened base behind them. When the lips are attacked they swell considerably and are very tender to the touch. If the eruption be irritated superficial ulceration is apt to set in, a condition which will considerably retard recovery.

Herpes pro genitalis is also frequently seen. It is most frequent on the prepuce (*h. preputialis*), and glans penis; it is also seen upon the vulva and labia minora. It first appears as an

erythematous macule, discrete vesicles show themselves, and, breaking down, give rise to excoriations, or small superficial ulcers, which are followed by crusts and some desquamation. Relapses are frequent, and the eruption may alarm the patient, on account of the locality in which it occurs. It is a possible source of danger from the fact that it offers a susceptible surface for any possible venereal contagion. This variety is also important as it is apt to be confounded with venereal ulcers.

The causes of herpes are febrile disturbances and external irritants. Bazin and Hardy have claimed the existence of a herpetic diathesis. Gastric and intestinal disorders act as a cause, as well as those mentioned above.

The diagnosis is to be made from herpes zoster and eczema. In the former the distribution and subjective symptoms are so well marked that no mistake could occur. In the latter the varieties are always distinct and there is exudation. Moreover, each vesicle is not provided with an areola, as in herpes.

The treatment is entirely symptomatic. Locally, protection to the vesicles is necessary. This can be accomplished by means of absorbent cotton upon which a weak zinc oxide ointment, or unguentum aquæ rosæ has been spread. The following will be found a good ointment to use, as it is mildly astringent and markedly dessicative.

℞ Bismuth. subnitrat.	5iv.
Cerati simplicis.	5j.
M. Sig. Apply frequently.	

When crusts make their appearance let them fall off spontaneously.

In herpes progenitalis, if the vesicles have ruptured, some astringent wash or ointment should be employed. By using a solution of one in eight of nitrate of silver on the excoriations and following this up with an astringent ointment, a rapid recovery will follow. When the vesicles have not burst it is a good plan to open them and to use the following dusting powder.

℞ Cocaini muriat.	gr.xv.
Zinci oleatis.	5ij.
M.	

Saline laxatives are useful to prevent relapses in all forms. No promise can be made, however, that the trouble will not relapse, and opinions in this respect should be conservative.

HERPES IRIS.

Syn.—Hydroa, Herpes Circinatus.

This is a comparatively rare affection. It is characterized by small vesicles appearing in concentric circles, each lesion surrounded by an areola. The intervening integument assumes a bluish, reddish, yellowish, or violaceous tint, but generally there are several of these rings occurring simultaneously, giving the eruption a rainbow appearance. The vesicles in a ring are apt to coalesce, forming an annular vesicle, the center being apparently normal. This bursts, a thin crust is the result, and when it falls off a macule remains which persists for some little time. The trunk and extremities are the parts most often affected. The diagnosis is generally easily made and the treatment is, in the main, that of herpes.

HERPES ZOSTER.

Syn.—Zona, Cingulum, Shingles, Zoster, Ignis Sacer.

Herpes zoster is acute in character and vesicular in form. It is preceded by malaise, fever, neuralgia, etc., which may last a few hours or days, or even weeks. The neuralgic pain is localized and marked, being the most important symptom to the patient. The eruption makes its appearance first as an erythema, soon followed by groups of papules which, in a short time, are changed into vesicles. The vesicles, which vary in size from a pin-head to a split-pea, are distributed in groups of ten or more, closely aggregated and surrounded by a marked, red areola (See Plate VIII). Frequently they coalesce. Successive crops keep on appearing for two or three weeks. The vesicles assume an opaque hue, the contents become purulent, and, in from nine to ten days crusts have formed which drop off, leaving the skin slightly pigmented. The distribution of the vesicles is a notable feature. They are always situated along the course of cutaneous nerves, and this is the reason that the disease is so rarely bilateral. The nervous origin of this trouble is well established. This is not only proved by the fact of its distribution over areas supplied by cutaneous nerves, but the nerves themselves have been demonstrated to suffer organic alterations. In children there is not such a marked involvement of the nerves and, in consequence, we do not find them complaining so much of the neuralgia. On the other hand, a high fever—the zosterian fever—is apt to manifest itself. This symptom is one never seen in adults.

It has been generally supposed that one attack insures immunity from subsequent ones. This, however, is evidently incorrect, for the evidence of numerous observers goes to show



HERPES ZOSTER.

that a patient may not only have more than one attack of the disease, but may have them several times within a year.

The disease is at its height during the first week. The vesicles have no tendency to rupture, but may be torn open. It is seen most often in winter. The causes are such as produce injury to nerve trunks or to the posterior spinal roots. Exposure to cold is not an uncommon cause. Sudden psychic disturbances, such as anger, fright, etc., has been invoked as exciting causes. Micro-organisms have also been accused of producing zoster.

The diagnosis is, as a rule, not difficult. It might be confounded with herpes, but its distribution and subjective symptoms serve to differentiate it.

The different varieties mentioned by some authors are merely derived from the locality in which the lesions are found. Thus we have zoster pectoralis, lumbalis, dorsalis, brachialis, cruralis, ophthalmicus, etc. The fact that the disease is generally unilateral, that it most often attacks the trunk, and that, when in the temporal and ocular regions, it may attack the cornea, should not be forgotten. Zoster ophthalmicus is not only accompanied by excruciating pain, but is dangerous on account of the possibility of being attended by perforation of the cornea, and consequent impaired vision.

The treatment should be internal and external. For the former phosphide of zinc in doses of one-third of a grain four times daily is recommended. Arsenic is also useful in tonic doses given in the form of arsenauro, arsenious acid, Fowler's solution, or the bromide of arsenic. Morphine, bromide of potassium, and other sedatives, are frequently necessary to relieve the intense neuralgic pains. Locally, protection of the lesions is indicated. Cotton, upon which a soothing powder containing some anodyne has been spread, is probably the best. The following should be liberally applied not less than twice daily:

Rx	Pul. camphoræ	ʒi.
	Cretæ preparat.....	ʒiij.
	Talc. Veneti.....	ʒij.
	Magnesiæ carbonat.....	ʒij.
M.		

The cotton application is an absolute necessity to ensure the vesicles from being burst, for deep ulcers, which are stubborn to

treatment, are apt to result. In some localities an ointment is a better application, and the following will be found of value:

℞ Cocaini muriat.	gr. xx.
Zinci stearat co.	5jss.
Ung. aquæ rosæ.	5j.

M.

To soothe the local pains, galvanism may also be resorted to. The vesicles should never be opened, and, if they accidentally burst, the ulcers should be treated antiseptically.

DERMATITIS HERPETIFORMIS.

Dermatitis herpetiformis is a form of inflammation of the skin which is but occasionally seen. It is polymorphous in form attacking almost any portion of the integument, or the whole cutaneous covering. It is characterized by successive crops of lesions, and these may be of various characters, such as vesicles, papules, pustules, and excoriations secondarily. A most intense itching is a prominent symptom. Burning is also an accompaniment of the affection. The itching frequently shows itself before any appreciable lesion can be seen. Then it most frequently begins as a vesicular eruption arranged in herpetic groups, or in circinate forms. In addition, various other inflammatory lesions appear, and scratching causes marked and deep excoriations, some of which suppurate and crust. Relapses are numerous, and follow each other in quick succession. The disease is sometimes grave in character and occasionally fatal. In general, it may be said of dermatitis herpetiformis that it is more or less herpetic in its type. It may last for months or years, and is, at present, the subject of much discussion. Its proper place in nosology has not yet been determined.

The treatment which has been so far essayed does not seem to have been successful. Although conceded to be a disease of neurotic origin, beyond any doubt, the ordinary remedies applicable to such conditions seem to be powerless. Arsenious acid is the best internal agent combined as follows:

R. Acidi arseniosi.....	gr. 1-20.
Piper. nigris.....	gr. jss.
Ext. gentian.....	gr. ijss.
M. Ft. pil. No. I.	

One such after each meal, with occasionally a sulphur and cream of tartar powder, acts quite well.

Externally the tar preparations, oil of cade and other agents has been more or less successful, but none has proven satisfactory so far. *Herpes gestationis* is now regarded as a form of this disease, as are also the *hydroas* of some, *herpes circinatus bullosus*, etc.

In herpes gestationis we have a cause present which is self-limited, and although the same sudden acute attacks occur as in the ordinary forms of dermatitis hypertiformis, when parturition is accomplished the skin affection leaves. The treatment in such cases is entirely palliative and consists of anodynes, both internally and externally.

MILIARIA.

Syn.—Lichen Tropicus, Miliaria Alba, Miliaria Rubra, Prickly Heat.

This common affection occurs in two forms, the papular and the vesicular. There is a mixed form, however.

Miliaria papulosa is composed of an eruption of a very large number of minute, bright red papules, but a trifle elevated. The papules are crowded but never coalesce. The eruption appears rapidly and is preceded by excessive perspiration. The papules are so closely aggregated that the general appearance of the eruption is that of a bright red, elevated irregular rash, and it requires close investigation to see the separate lesions.

Miliaria vesiculosa is similar in distribution and appearance with the exception that the lesions are minute vesicles having thin walls. At first transparent, they become whitish and opaque (*miliaria alba*). The skin has a red color, due to the areola surrounding each vesicle. The vesicles soon dry up and are followed by a slight desquamation. It sometimes occurs that a purulent process sets in in the lesions, whether they be papular or vesicular, and this always complicates the disease, although the process is superficial and is followed by small, thin crusts.

The portions most commonly attacked are the abdomen, the chest, the neck, and the arms, although any portion of the integument may be the seat of the disease. It is symmetrical in distribution. Burning, tingling and itching are the accompanying subjective symptoms.

The cause of miliaria is excessive heat, due to the atmospheric temperature, clothing, or both. Fleshy individuals, whether adults or children, are most subject to it. The affection

is easily reconized, its sudden onset distinguishing it from eczema, and the subjective symptoms from sudamina.

The treatment is essentially refrigerant. Cool clothing, a cool room, plain food, acid drinks and saline aperients are beneficial. Absorbent dusting powders are indicated locally. These powders should also be cooling in their nature. A useful form is the following:

℞	Cretæ preparat.	5ij.
	Sodii bicarbonat.....	5ijss.
	Pulv. camphoræ.....	5j.
M.		

Mild astringent lotions, such as very dilute sulphate of copper solution (gr.x-ʒvj.) act well. Alkaline baths are excellent, or the "dabbing" on of a borax solution. No fear need be entertained from retrocession.

Relapses are frequent and while not dangerous in our zone, miliaria may become transformed into a dermatitis or eczema by reason of the scratching indulged in. For this reason it is well to watch it. It is essentially a disease of summer.

POMPHOLYX.

Syn.—Hydroa, Dermatitis Bullosa, Erythema Bullosum.

Dysidrosis, *pompholyx* and *cheiro-pompholyx* are vesicular affections in which the tendency is observed of the lesions to coalesce and form bullæ. A certain amount of pain, heat, tingling, smarting and itching is manifested. A peculiarity of these bullæ is that they flatten, their fluid contents are reabsorbed, and desquamation sets in. Relapses are frequent, and the process seems to owe its origin to a neurotic base. Cheiro-pompholyx seems to be limited in its distribution to the hands and arms or feet, and more particularly to the extensor surfaces. In this variety heat, external irritants and similar causes are active factors in its production. Hot weather is also a cause.

In the treatment of all these forms it is essential that tonics should be administered, combined with such nervines as may seem indicated in the case in hand. Locally mild stimulating applications will serve the best purpose.

Cases of these troubles, however, are comparatively rare, or at least very unusual. Besides, they disappear spontaneously in later years, although much relief may be afforded by treatment.

PEMPHIGUS.

This is an uncommon disease which manifests itself by the appearance of bullæ of various sizes. When the bullæ are large, there may be but one, or at most, a small number. When small, on the other hand, a large number will be found present. The disease may be acute or chronic in character, two varieties being recognized: pemphigus vulgaris and pemphigus foliaceus.

Pemphigus vulgaris is found most frequently upon the limbs. The blebs are roundish or ovalish, and vary in size from a split-pea to a goose-egg. Their walls are distended and more or less glistening. They contain serum, or pus, and have a reddened base. They vary in number from one or two to several dozen, and it requires them three to six days to develope. Successive crops appear. Itching and burning are present. In the ordinary form there is a tendency to chronicity, the patient is run down to some extent, anemia is present, together with languor and physical weakness. The nervous system seems to be impaired, and the functions in general are sluggish in their performance. In the acute form severe general symptoms almost always occur, and death often terminates the case. It is always serious in character and requires close attention.

Pemphigus foliaceus is a rare and a grave form. The blebs are flabby and rupture easily. It is chronic, and after the blebs rupture there are left flakes on an unhealthy, excoriated surface. Healing is very slow, and the granulations which form are unhealthy in character and appearance.

The serum in the blebs of pemphigus becomes puriform in a short time; sometimes the contents of the bullæ are bloody. The reaction of the serum is neutral or weakly alkaline, becoming more markedly so as the lesions become older.

The treatment should be both internal and external. Any functional disorders which exist should be corrected. A good

diet and superior hygienic conditions should be insisted upon. Arsenic should also be exhibited in this disease, as it acts almost as a specific. The best form in which to exhibit it is as arsenious acid in the Asiatic pill. Locally, very simple measures are necessary. Open the blebs freely and allow the contents to escape. Dress the lesions with dilute *lotio nigra*, or with dilute *liquor picis alkalinus*. A dusting powder or some bland ointment may be used as a dressing. If a large amount of surface be involved, starch or gelatin baths should be employed. The continuous bath is excellent in grave cases. In pemphigus foliaceus, tonics are particularly indicated. In addition to this, linseed oil, internally and externally, has given some of the best results.

Relapses are common in pemphigus, and its course and final result are very uncertain, even under the best of treatment.

LICHEN RUBER.

This disease is very rare. It begins as small conical papules, of waxy appearance, of brownish-red color, symmetrical in distribution, and having a tendency to invade extensive surfaces. The face is generally affected. The papules flatten, acquire a central depression, and desquamate slightly. The papules acquire a uniform size and never grow large. They fuse into patches which are rough, and of an even brownish-red color. It is not known to attack mucous membranes. The nails and hair become affected. A diffuse, yellowish, brown stain, in large expanses, follows the patches. Itching, when present, is mild in the beginning. In the chronic state it is moderate, but never severe. Emaciation generally accompanies this disease, and, in long standing cases, death by exhaustion occurs.

Arsenic, internally, has been recommended, but it does little good. Iron, strychnine and phosphorus with quinine gives better results. Hot alkaline baths, frictions with tincture of *sapo viridis* and oily inunctions are valuable local measures. Where there is much thickening and fissures, such as occur in the palms and soles, balsam Peru and diachylon ointment (3j to 5j) is the best application.

The disease is essentially chronic and amenable to treatment only with difficulty.

Lichen ruber moniliformis is simply a modification of *lichen acuminatus*. It manifests itself in the form of lines of papules running in a vertical direction upon the arms and abdomen, the thighs being also implicated. A curious circumstance in connection with this is that it is the anterior surface of the body which is implicated. But a few cases have been observed up to the present time.



LICHEN RUBER PLANUS.

LICHEN PLANUS.

In this disease, which is regarded by some as a variety of lichen ruber, we have the formation of inflammatory spots and patches, which remain localized. Flat, red papules form, and these flatten into round, oval, angular, or polygonal outlines. Their surface is covered with a thick horny layer, silvery in appearance, and having a central depression. The surface has a micaceous appearance, never waxy. The papules increase in size, and may develop into patches of greater or less size. Each papule generally runs an independent course. The lesions are of a deep red color at first, and later on become violaceous or lilac. When chronic, dense, hard, uneven surfaces are seen, especially about the knees and ankles. It is then of a dark or crimson-brown hue. It is symmetrical, beginning at the inner part of the forearms near the wrists (See Plate IX), upon the abdomen, the back and inner part of the legs and thighs. It rarely occurs on the palms or soles. The nails and hair are unaffected. It may attack mucous membranes. It leaves a dull-red, rusty-brown, or crimson-brown stain in irregularly shaped patches. Itching is marked in the beginning; afterwards it may be mild or intense. There is no serious systemic reaction.

The treatment is similar to that of lichen ruber, which it greatly resembles in its tendency to chronicity. One of the best local applications is pure campho-phenique applied two or three times a day, this being supplemented by arsenic given internally. A rapid result follows this mode of treatment.

PRURIGO.

Prurigo is very rare in this country, although common enough in Austria. It commences to make its appearance in early years and generally continues to remain through adult life: It consists of sub-epidermal papules which vary in size from a millet seed to a split-pea. The lesions are discrete or situated close to each other, but never grouped. They appear as pale-red elevations covered, at times, with a scanty dry epithelium (not scales), and having a hard, shotty feel. The itching is intense, and as a result of the scratching which is indulged in, the papules present torn tops, blood-crusts, and excoriations are present; and, eventually, thickening and hardening of the skin, and pigmentation.

The portions most often attacked are the extensor surfaces of the arms, legs, and the trunk. The palms and soles are never affected and the head but rarely. The flexor surfaces are rarely the seat of the eruption, but the buttocks are the most frequent. Remissions occur in the severity of the itching, which is occasionally of a mild character for a certain length of time.

Severe forms are known as *prurigo ferox* and those not as severe are denominated *prurigo mitis*. The disease is exceedingly rebellious to treatment and all that can be done is to mitigate the symptoms. Tar and sulphur applications act best, aided by antipruritics. The tendency is for the process to be chronic and remain so.

LICHEN SCROFULOSUS.

Syn.—Lichen Scrofulosorum, Lichen Circumscriptus, Tuberculosis Cutis Lichenoides.

This affection is one which, whilst not exactly rare, is sufficiently uncommon to attract more than ordinary attention. It occurs most often in children, but is seen in adults also. The subjects of this cutaneous affection are of strumous habit, or what used to be denominated scrofulous. The eruptions consist of flat, reddish or yellowish miliary papules, which are grouped. Each one surrounds the opening of a hair follicle, and it is no unusual thing to find the papule tipped at its apex with a minute crust. This is caused by the itching, which is quite marked at times. The breast, abdomen and back are the parts most frequently affected by the disease.

The treatment should be directed more to the cause than to the eruption itself. Pure air, nutritious food and the best of sanitary surroundings are of the highest importance. Cod liver oil and hypophosphites internally are of value. The iodo-bromide of calcium compound is perhaps the best internal remedy, and it may be combined with the syrup of the iodide of iron in anemic cases with benefit. Externally cod liver oil is of benefit. The following ointment is also of value:

R	Tinct. iodini	.....	5ss.
	Ung. aquæ rosæ.....	.....	5j.
M.			

This should be applied daily, morning and evening, and rubbed over the enlarged lymphatic glands, which are almost always an invariable accompaniment of the disease.

If the treatment be energetic a good result may be expected.

ACNE.

Syn.—Acne Vulgaris, Varus, Stone-pock, Whelk.

This is one of the most common of the skin diseases. It consists of an inflammatory condition of the sebaceous glands and manifests itself in the form of papules, pustules and tubercles distributed, for the most part, about the face, neck, back and shoulders (See Plate X). There are no subjective symptoms except slight pain upon pressure when the disease is in its acute form.

Acne papulosa is characterized by bright to dusky red papules varying in size from a pin-head to a split-pea. This distribution may be discrete or they may be closely aggregated, presenting a disagreeable appearance. These papules undergo more or less resolution or may enlarge and become indurated. Or, a minute quantity of pus may show itself at the apex. The cause of this pustulation in pustular acne is entirely from without. The micrococcus pyogenes aureus or albus falling in the opening of the sebaceous follicle finds a good soil in which to develop. The inflammatory condition furnishes an excellent cultivating medium and, as a result, the pus increases, going down in a vertical direction along the canal of the gland.

Acne pustulosa, as its name indicates, is distinctly pustular. The purulent process begins below and works its way up, and slight pressure elicits quite a marked degree of pain. The papules, in these cases, rapidly change into pustules, which develop until their acme is reached. Their contents are then discharged, a small crust forms, and the lesion heals spontaneously, new crops appearing.

Acne tuberculosa is characterized by a number of small or large, generally flattened, reddish tubercles, which have a tend-



ACNE.

ency to remain in *statu quo*, or to enlarge. When a certain stage in the enlargement has been reached suppuration occurs, and this process is always a deep one, beginning in the subcutaneous connective tissue. The formation of pus, however, is not a constant accompaniment, and infiltration and induration may occur, giving rise to the so-called *acne indurata*.

Acne artificialis is that form due to the influence of external irritants, such as tar.

Acne cachecticorum is found in those affected with some depressing disease. The lesions are indolent, papulo-pustular, more or less livid, and leaves scars. There is always a stasis, and a generally unhealthy appearance is observable in the lesions. The acne, as a rule, improves as the general condition becomes better, without any treatment of the eruption.

Acne atrophica is a form in which variola-like scars follow the lesions. This form is known as *acne varioliformis* or *acne necrogenica*, and is one of the varieties requiring prompt and energetic treatment in order to avoid the disagreeable resultant disfigurement.

In acne, successive crops of lesions are continually making their appearance, and the tendency of the disease is to chronicity. When pustules exist the disease is spread by auto-infection. Patients will "pick" a lesion, and, in searching for others, infection takes place, and thus the eruption is spread over large areas, where it would not occur if it were not for this uncalled-for irritation. The first appearance is generally at puberty, and it disappears spontaneously at the twenty-seventh year, or somewhat later. Acne, however, has been observed in old age and in middle age, but never in early childhood.

The causes of this disease are numerous. The primary predisposing cause is the excessive functional activity which occurs in the sebaceous glands at puberty, aided by the presence of comedones. The most frequent exciting causes are gastro-intestinal disturbances. Constipation is almost always an accompaniment, and dyspepsia frequently so. Uterine disorders, especially of the functional variety, and genito-urinary disturbances also act as factors.

The diagnosis is not difficult. It must be distinguished from eczema, small-pox and syphilis. The history and subjective symptoms are sufficient to establish the difference.

The treatment should be both local and general. For the constipation which exists, particular attention must be paid to the diet. To cause the bowels to act more regularly, fluid extract of cascara sagrada, or the aperient mineral waters are useful. An

excellent aperient is the compound hepatic pill (pil. hepat. co.), which is both thorough and satisfactory. An occasional dose of calomel will be of benefit. Duhring's acid aperient mixture is productive of good results. Besides remedies for the regulation of the functions of the bowels the stomach should be attended to, if there be an indication presented. Disturbed gastric and intestinal digestion demand close attention. It is recommended that sulphide of calcium, in quarter grain doses, should be given four times daily in the suppurative form of the disease, in order to stop the suppuration. Its value is doubtful. Arsenic is sometimes useful in the indurated forms, in doses of one or three drops of Fowler's solution in wine of iron, or in one drop doses, in water, of a one per cent solution of bromide of arsenic, thrice daily, after meals. The best form in which to administer it is, without doubt, as arsenauro in five to ten drop doses, in water, after meals. Ergot is said to be a valuable internal remedy in acne, but should be used carefully.

In young females particular care should be paid to any functional disorders of the uterus which may present. By far the most common form is dysmenorrhea, and at every catamenial period it will be observed that the eruption is aggravated. This is so important a factor that if this trouble be completely relieved, the acne will frequently disappear entirely in some cases.

The local treatment should be either soothing or stimulating, according to the indications presented. The latter is generally the plan to be adopted, as the cases are already somewhat advanced when seen. The methods of stimulating are numerous. Sapo viridis, pure or diluted, may be applied. This is washed off, after a short time, and a bland ointment applied. Hot water cloths applied at night, and followed in the morning by cold douches and frictions, are valuable. Sulphur is probably the best general remedy. It may be applied in the form of ointments or lotions, varying in strength from twenty grains to two drachms to the ounce. The following lotion, recommended by Bulkley, is good:

R	Sulfuris loti.....	5j.
	Etheris	5vj.
	Alcoholis	5iijss.
M.		

Sulphuret of potassium may be used, also Vlemingx's lotion. Ichthyol, which is very rich in sulphur, is also excellent, put up in ointment form in the strength of one-half to one and

one-half drachms to the ounce. Sulphur and oleate of mercury in combination is also excellent. It should be used as follows:

℞ Hydrarg. oleat., 5 per cent.,
Sulfuris loti.....aa, 5ss-5j.
Ung. aquæ rosæ.....5j.

M.

By far the best treatment in general is that in which the external applications are supplemented by surgical procedures. By these latter is meant the systematic puncturing and emptying of pustules and scarification of papules and tubercles. Many lesions are apparently papules, but by puncturing them deeply with a milium needle a small drop of pus will exude and thus shorten the process. Then Vlemingx's solution should be lightly applied at night and the following in the morning:

℞ Resorcin puriss.....5j.
Ung. aquæ rosæ.....5j.

M.

In those cases in which pustulation begins at the apices of the papules, it is due to cocci from without, and may be prevented by opening the small pustules and applying a 1-1000 bichloride solution, this to be repeated before each regular application, in order to prevent the local suppurative process. Of course, sulphur preparations are contraindicated on account of the black precipitate which forms. Carbolic acid lotions, chloro-phenique or other parasitocides which do not conflict with sulphur may be used.

In the indurated and tubercular forms of acne, free scarifications and warm cloths to induce hemorrhage is a very good plan of reducing the hyperplasia. Local mercurials, in conjunction with this, act very well. Care, however, should be taken not to overstimulate the skin with these external applications, as more damage may result from this than benefit from the remedy.

While acne is difficultly amenable to treatment, proper management generally secures good results.

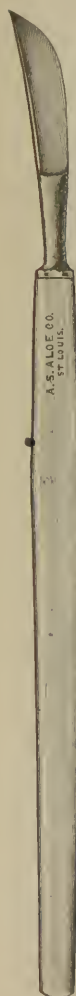


Fig. 19. Author's Cutisector.

ACNE ROSACEA.

Syn.—Gutta Rosea.

This trouble is a rather common one, occurring in both sexes. It is usually confined to the nose and adjacent parts, such as the cheeks and the central portion of the forehead and chin, or it occasionally involves but a limited part and remains localized. There are no subjective symptoms. It is usually divided into three stages: the hyperemic, the inflammatory and the hypertrophic.

In the first stage there is more or less diffuse redness of the part, the process being a passive hyperemia somewhat inclined to stasis. When the nose is attacked, it looks shiny and greasy from the seborrhea which is present (See Plate XI). This stage may be permanent or it may pass on to the second in which the redness is more marked, the capillaries are enlarged, and visible as small, bright red, delicate lines running over the surface. In addition, acne of a papular and pustular type is found. In the third stage, hypertrophy of the cutaneous tissues takes place, the vessels become greatly enlarged, the nose becomes nodulated, of a violaceous tinge, pendulous and, sometimes, of enormous proportions (*rhinophyma*), the openings of the ducts of the sebaceous glands being patulous (See Plate XII).

This disease is essentially chronic. In women it frequently does not go beyond the first stage, and not often beyond the second in any.

The causes are varied, such as uterine disorders, exposure to heat and cold, excesses in eating or drinking, the free use of alcoholics, and any of those conditions which produce acne.

The diagnosis is not difficult, as a rule, since it only needs to be differentiated from acne, syphilis, lupus vulgaris, or lupus erythematosus.



ACNE ROSACEA.



RHINOPHYMA.

The treatment is, in the main, that of acne. Stimulants locally, and careful general medication. The withdrawal of alcohol and proper dietetic measures must be enforced. In the second stage, the distended bloodvessels should be destroyed by cutting them open; by electrolysis, which is the best method, but the needle should be used rather superficially, as better results follow than if it be plunged deep into the tissues; by cutting across at short intervals; or by other measures, which may suggest themselves. Strong local stimulating measures are indicated. In the third stage nothing but surgical measures will prove of much avail, and these must be made to conform to the individual case.

SYCOSIS.

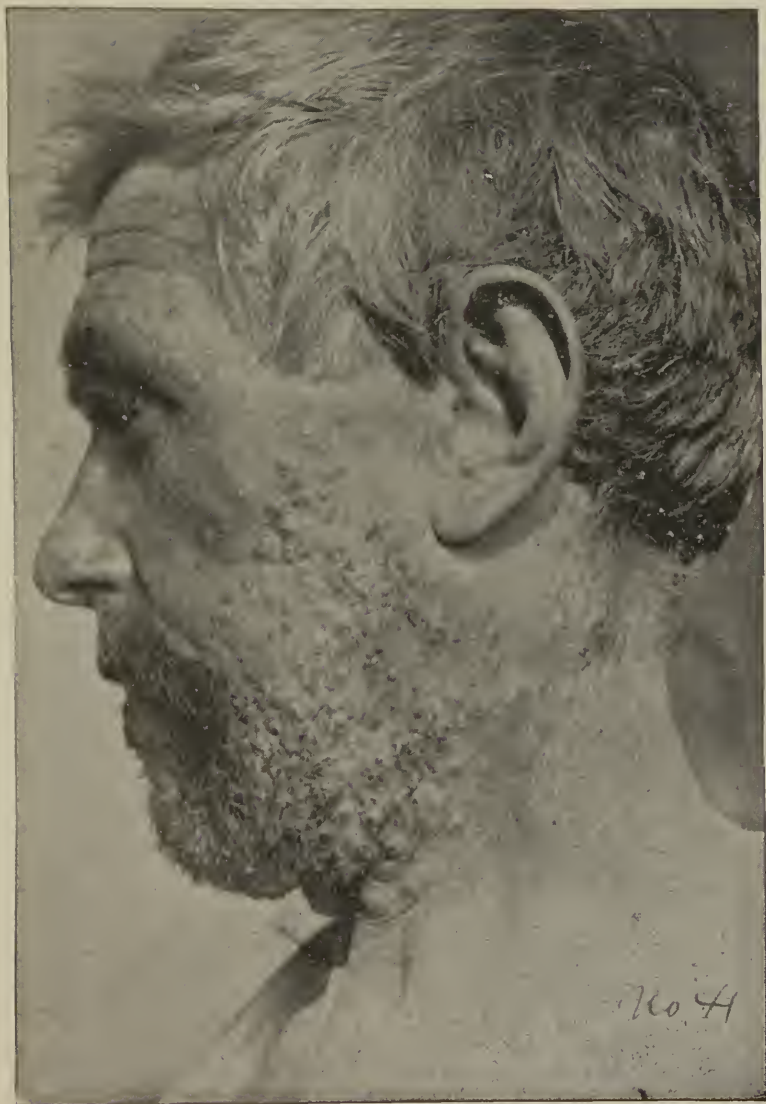
Syn.—Sycosis Non-parasitica, Mentagra, Acne Mentagra, Folliculitis Barbæ.

Sycosis is a chronic pustular disease, limited to the hairy portions of the face, and, on that account found only in men. It begins as a small, red macule surrounding a hair. In a short time it is transformed into a small pustule, non-elevated, through whose center a hair emerges. There is deep-seated pain, burning and tingling. If permitted to continue, the skin becomes red, the pustules increase in number, the integument thickens and nodules form (See Plate XIII). The upper lip is a favorite site for sycosis; the beard is also frequently involved, while the eyelashes, eyebrows, pubes and axillæ are only occasionally the seat of the disease.

While not contagious, sycosis is easily infectious. As the suppurative process is due, in a great measure, to bacilli and micrococci, auto-inoculation is a common occurrence, and hetero-inoculation is possible. Epidemics have occurred through the medium of barber shops.

The diagnosis is easy. Lupus, eczema, the pustular syphilide and tinea barbæ somewhat resemble sycosis, but the character of the pustules, each one pierced by a hair, easily distinguishes it.

Pathologically, sycosis is a perifolliculitis, which may be deep or superficial, according as micro-organisms have penetrated deeply or not into the hair follicle. The hairs can be easily extracted, and when this is done, a small white cylinder of epithelium is found adhering to the root-sheath. But little pain is experienced in epilation when the process is deep; on the other hand, pushing the hair down in the follicle is very painful.



SYCOSIS.

The treatment should be local. There are very few cases in which general treatment is indicated, and in these, the condition requiring it has but little influence on the cutaneous trouble. One of the most important things to do is to epilate daily or shave. Then apply a germicide. For this purpose bichloride lotions in the strength of 1-500 or 1-1000, or campho-phenique pure, should be thoroughly applied. Not only this, but the

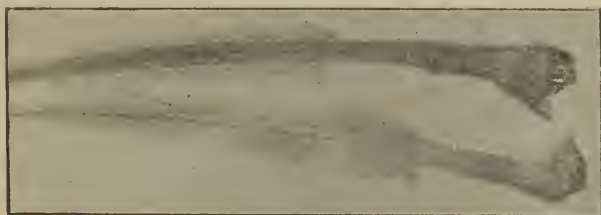


Fig. 20.—Hair in Sycosis.

pustules should be emptied. While the epilation and shaving is practiced once daily, the application of germicides should be made at least twice. In acute cases, this is followed by the application of soothing ointments. In chronic cases, stimulating applications are indicated. The ammoniated mercury ointment, ten grains to the ounce, oleate of mercury five per cent., or some similar preparation, is useful. If small abscesses exist they should be opened. If tubercles are present, free scarification, or curetting, will prove of benefit.

In sycosis of the eyelashes, epilation followed by the application of yellow precipitate ointment, one to fifty, is followed by good results.

While sycosis is curable, it is chronic and rebellious to treatment, and relapses are not rare.

PERIFOLLICULITIS.

This trouble is one which is occasionally met with in adults and children, males and females. It is essentially of inflammatory nature, and the lesion is invariably pierced by a hair. It appears at first as a macule, which rapidly changes to a flat papule of a rather bright color. This, in turn, becomes a pustule which may be either superficial or deep. The distribution is not limited to any particular portion of the body. The scalp may be the only portion affected, or the chest, back, limbs or hands may be severally or conjointly the seat of the disease. The most prominent subjective symptoms are pain and itching, and the scratching indulged in to allay the latter, is an active factor in spreading the process. It is partly for this reason that successive crops are observed.

There is no doubt whatever that perifolliculitis is due to micro-organisms which may be entirely confined to the surface or go down deep into the hair-follicle. In no case, however, is there complete destruction of the hair bulb or papilla.

The treatment should be such as will ensure the destruction of the causative organisms. The best method consists in freely applying campho-phenique to the affected parts several times daily. This not only prevents a spread of the process, but insures rapid recovery from the existing eruption. Where patches are of limited extent bichloride solution or solution of trikresol will be found effective.

DERMATITIS PAPILLARIS CAPILLITII.

Syn.—Acne Kelod, Sycosis Capillitii, Sycosis Frambesia.

This rare trouble manifests itself at the edge of the scalp at the occiput, and travels upwards to the vertex, spreading laterally in its course. It first manifests itself in the form of small papules which coalesce and finally form thick tuberculous masses of a warty nature. At this stage pustules are found here and there. A foul discharge oozes out from between the papillæ, and bleeding follows the slightest touch. Abscesses form underneath, and in the course of time shrinking occurs, with an indurated atrophic condition of the scalp. The hairs then become clustered in tufts and bald spots occur here and there.

The best treatment is without doubt the application of solution of pyrozone twenty-five per cent. at the very inception of the process, and later on the destruction of the more actively destructive parts by means of the same or of cauterizing agents, followed by antiseptic dressings.

IMPETIGO.

This unusual affection generally occurs in children who are poorly nourished. It is composed of pustules, which begin as such and whose size varies from a split pea to the finger-nail. They are semi-globular in form and markedly raised. They have thick walls and are surrounded by an areola. They are yellowish or whitish in color, firm to the touch, and neither rupture nor coalesce. They may occur anywhere, but preferably on the face, hands and feet. They are generally few in number, probably a dozen in all. The disease is benign; there is no burning or itching. In a few weeks the lesions disappear. General roborant measures are the most important in the treatment. The local treatment is a very simple one.

IMPETIGO HERPETIFORMIS.

This is an exceedingly rare disease, which, so far, has only been observed in pregnant women, and has invariably had a fatal termination. It is characterized by the appearance of pin-head sized opaque pustules, which become green in color. The lesions are grouped in a circle and several patches are in close proximity to each other. The groin, umbilicus, breast and armpits are the favorite sites; but almost the entire body may be covered. When the eruption occurs it lasts but a couple of days. The pustules dry up and crusts of a dirty brown follow. Relapses occur at short intervals, and are manifested by another ring of pustules outside of the former one and so on until they attain such a size as to touch. Each new crop is ushered in by rigors and a rise in the fever, which is always present. The whole disease lasts but a few weeks or months until death appears. The trouble seems to be of a septicemic character.

IMPETIGO CONTAGIOSA.

This disease is uncommon, occurring in infants and children, and consisting of patches of small, discrete vesicles which become pustules in a day or two. These latter increase in size, assuming a round or ovalish form. There are but a few as a rule, and these occur upon the face and hands. They have a tendency to coalesce. There is an areola surrounding each lesion. The pustules do not burst, but thin crusts form, which have the appearance of being "stuck on" the skin. The process occupies about eight to ten days. It is contagious and auto-inoculable. When a case occurs in a family of children they all acquire it unless prophylactic means are adopted. Whilst the hands and face are generally the parts attacked, other accessible localities may become implicated (See Plate XIV). Patients recover spontaneously. Cleanliness and zinc oxide ointment, or the ammoniated mercury ointment, six to ten grains to the ounce, are all that is necessary to hasten a recovery, although a preliminary antiseptic wash is advantageous.



IMPETIGO CONTAGIOSA.



ECTHYMA.

ECTHYMA.

This is also a pustular disease in which there is the formation of a few flat pustules which are of the size of the finger nail. The distribution is discrete. Each one is surrounded by an areola, and is painful to the touch. A few days after their appearance there are formed dark crusts, not adherent, beneath which there is an excoriated, angry-looking base. The course is acute, lasting from five to ten days. Among the subjective symptoms there is heat, pain and some itching present. Children and adults are subject to it. The process is superficial and attacks those whose general health is bad, or the debilitated. It somewhat resembles furuncle, but the process is not phlegmonous. There is no infiltration such as characterizes the latter, nor is there ever a core present. In fact, it is quite superficial, and the amount of pus formed is comparatively insignificant. Excoriations are not an infrequent accompaniment (See Plate XV). The treatment consists in the administration of tonics and such remedies and means as will put the general condition in better form. Locally, alkaline baths and cooling lotions during the first week of the process. Later on, the crusts should be removed and stimulating ointments employed as dressings for the excoriated surfaces. A good ointment is one composed as follows:

℞ Acid. carbolicæ ʒij.
 Ung. aquæ rosæ ʒij.

M.

If these appear sluggish, they may be touched with the stick nitrate of silver. In a few weeks the process will have terminated favorably.

PSORIASIS.

Syn.—Psora, Alphos, Lepra Alphos.

Psoriasis is observed quite often, coming for help quite frequently. It commences as a red macule which increases rapidly in size, becoming covered with scales. These scales are superficial, rather thick, white, shining, resembling mother-of-pearl. The patches, which may vary from a silver dime to a large superficies, are scattered. They are very slightly elevated and are accompanied by a sense of burning and by itching, not very marked. When the scales are scratched or scraped off a reddened base is revealed and, here and there, small points of oozing blood. The disease is at first rapid in its evolution, but in a very short time it lapses into a state of chronicity and remains so. The extent of integument which is attacked varies from one or two small lesions up to an involvement of nearly the entire skin (See Plate XVI). The portions which are subject to this trouble are, in general, the extensor surfaces. The knees and elbows, the back, the chest, and the scalp most frequently exhibit it. It is not often seen on the face, nor on the palms or soles. In fact, in these two latter parts it is rare to meet it.

Psoriasis is very prone to relapses after a greater or less interval of time, varying from one to five years. It is not contagious.

Psoriasis punctata is that form wherein there are pin-head lesions present, being the form which it affects at the beginning. In *psoriasis guttata* the lesions are larger, and out of each one there exudes a drop resembling mortar. This is not frequently seen. In this, as well as in other forms, the affected part is sharply defined from the healthy skin and there is more or less of a raised border.



PSORIASIS.

Psoriasis nummularis exhibits round, coin-like lesions, while *psoriasis circinata* shows patches in which the center has cleared up to some extent. When several of these latter coalesce and the portions overlapping disappear we have serpentine lines constituting *psoriasis gyrata*. When large areas are involved the name of *psoriasis diffusa* has been applied to the condition.

The causes of psoriasis are unknown. It generally occurs after puberty in persons enjoying good health, and consists of a hyperplasia of the elements of the mucous layer. It is, however, not infrequently seen in children, especially girls.

The diagnosis is apt to be difficult. It may be confounded with eczema, syphilis, seborrhea, eczema seborrhoicum, tinea corporis and lupus erythematosus.

The treatment of this trouble should be both general and local. If any abnormal general state be present it should be corrected. Arsenic has been recommended as an adjuvant, but it does not seem to exert much influence. If employed it should be used only in the chronic stage. Then it is to be continued a long time. It may be given in three or four drop doses of Fowler's solution in wine of iron after each meal, or in the form of the Asiatic pill made as follows:

℞	Acidi arseniosi.....	gr. ij.
	Piperis nigris	ʒij.
	Pulv. glycerrihiz. rad	ʒj.
M. Ft. pil. No. 40. Sig.: One pill thrice daily after meals.		

Iron and phosphorus have been recommended, as well as alkalies. Large doses of iodide of potassium unaccompanied by any external treatment have succeeded in causing the disease to disappear. About 250 to 300 grains are to be administered daily, commencing with a small dose and increasing even beyond an ounce a day.

Locally, if the condition be acute, alkaline lotions and bland ointments should be applied. If chronic and scaly, remove the scales by means of *sapo viridis* and water. Then apply some tarry preparation such as may be used by combining *pix liquida*, or oil of cade in some extemporaneous preparation. Creasote ointment or *sapo viridis* alone are praised by some. Salicylic acid is a good agent in the strength of twenty to sixty grains to the ounce. Chrysarobin and pyrogallic acid, while good, are irritating and stain the skin unless combined with other remedies.

Wilkinson's ointment, as modified by Hebra, is an excellent application. It is made as follows:

℞ Sulfuris loti,	
Olei cadini.....	aa, ʒiv.
Saponis viridis,	
Adipis.....	aa, ʒj.
Cretæ preparatæ.....	ʒiiss.

M.

The following combination is also a useful one:

℞ Chrysarobini,	
Acidi salicylici.....	aa, gr. xv.
Ichthyol	ʒj.
Unguenti aquæ rosæ.....	ʒj.

M.

A neat application is one made by dissolving thirty grains of salicylic acid in one ounce of traumaticine and painting on the lesions once a day. The cold pack will often relieve the patient of the eruption and it is very grateful to the affected skin.

An excellent method, which has found much favor on account of its simplicity, is the administration of thyroid extract or of desiccated thyroids alone. It is highly successful in some cases and is easily borne.

While the eruption generally yields readily to treatment, relapses are very frequent and the disease may reappear at any time.

PITYRIASIS MACULATA ET CIRCINATA.

Syn.—Pityriasis Rosea.

This disease may appear at any age, but is seen most often in the young. It affects the trunk, neck and arms. The first manifestation is that of a rose-colored macule which spreads at its edges, and in a few days or a week a number of bright red macules appear forming new patches. After existing some little time, the centre becomes depressed and of a brownish tinge. The general shape is roundish or ovalish. Two general forms of patches are distinguished—the small macules with indistinct borders, and the larger and well defined ones. In both varieties small scales are found in the patches. Successive crops appear, and as lesions fade at one place, new ones appear at another. There are no marked subjective symptoms. Itching exists to a slight degree. The trouble is not contagious.

The treatment should be generally of a soothing character. The calamine lotion is excellent, as also the sol. antiprurit. co. Mild carbolic acid lotions are also good.

PITYRIASIS RUBRA.

This rare affection begins as red, scaly patches and, after a time, it involves large areas or even the whole integument. There is a free desquamation of thin, papery scales, varying from the size of the finger-nail to that of the palm, and amounting to at least as much as would fill a gallon measure in a night. The color of the skin is red, but it is not thickened itself. The feeling imparted is that of a harsh, dry sort. Fissures seldom occur (See Plate XVII). The nails may become affected. There is very little burning or itching, the trouble being generally chronic. A patient so affected feels chilly and the sluggish circulation is evidenced by the cool impression imparted to the feel by the integument. Those who suffer from the trouble are always weak, emaciated and run down. It is not unusual to find some organic heart trouble or involvement of other organs. It occurs in adults, and while general remedies are indicated, arsenic does not afford those results which have been claimed for it, but seems rather to act as a depressant. Externally, bland oils should be applied. Death generally comes in a few months after the full development of a case, when the entire body is involved in the process.

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PITYRIASIS RUBRA.

FURUNCULUS.

Syn.—Furuncle, Boil.

The furuncle is a lesion which shows itself at first as a red-disl^d macule. It soon becomes tender to the touch. It easily assumes a conical form, the base being infiltrated; and, in a short time, a central suppurating point is observed. It takes a week or ten days to develop. It varies in size from a split-pea to two or three inches in diameter, and the pain continually increases as it enlarges. The color is a deep red, pain is exquisite and "throbbing" marks the inception of suppuration. When the pus is evacuated a central mass of connective tissue, the "core," escapes or must be extracted. It will burst spontaneously, if permitted to go on untreated, and a depressed scar will result. The longer it is permitted to proceed without interference, the more suppuration will there be and, in some cases, there is danger of pyemia setting in. Any portion of the body may be attacked, but single boils or a number of them are most frequently observed about the face, ears, neck, back, axillæ, buttocks, perineum and legs.

The causes of furuncles are various, such as a general bad state of the system, inflammatory disorders, etc. In some cases there seems to exist a predisposition to their formation (furunculosis), and numerous crops keep on appearing, probably due to an auto-infection of the individual.

The treatment, in general terms, is to attend to the condition of the patient. If several boils are present, or have appeared in successive crops, sulphide of calcium (one-fourth to one-half grains) every two hours, should be given. Locally, the lesions may be aborted by applying caustics to the forming core, or by

injecting carbolic acid in oil or campho-phenique into the boil. Otherwise suppuration is to be encouraged by warm poultices and the boils cut open pretty freely, their contents allowed to escape and antiseptic dressings applied.

FURUNCULUS ORIENTALIS.

Syn.—Aleppo Bouton, Aleppo Boil, Delhi Boil, Biskra Bouton.

This is a lesion peculiar to oriental countries, which is rapid in its evolution, and begins as an unhealthy looking furuncle. It soon breaks down, an ill-smelling, thin pus escaping, and a foul ulcer supervening. There is no systemic disturbance accompanying the process, but it is very slow to heal. It is easily inoculable, and its origin is attributable to drinking water and washing in it, as it has been pretty well established that the poison is water-borne.

The treatment should be antiseptic, and when there are indications calling for it, curetting the ulcer thoroughly.

CARBUNCULUS.

Syn.—Carbuncle, Multiple Boil.

Anthrax consists of a dense, infiltrated, red phlegmon, varying in size from a small hen's egg to an orange and involving the subcutaneous tissues (See Plate XVIII). Its appearance is always preceded by malaise and chill, and fever is a frequent accompaniment. The process is at times so grave as to give rise to the most serious systemic disturbances and these are so severe as to result fatally. Suppuration takes place at a number of points, which discharge by separate apertures, so that the disease may be, in a way, considered a multiple boil. The pus is unhealthy in appearance and is discharged in large quantities. This is of such a nature as to constitute a serious drain upon the constitution and bring on marked weakness and debility.

The parts most affected are the neck, the back and the outer aspects of the hips. The lesion is usually single, although several may coexist. The termination of this disease is by sloughing, a number of small sloughs being thrown off or the entire mass coming whole.

The causes are similar to those producing furuncles, although it is contended by some to be due to the bacillus of anthrax.

The treatment demands general supporting measures and a very nutritious diet. Locally, various means have been resorted to. Crucial and circular incisions are adopted by some, whereas others do not seem to regard them favorably. When these incisions are made they should be deep and thorough, so as to open up all the purulent foci. Cold applications, warm fomentations, poultices, etc., are employed. The abortive measures



CARBUNCULUS.

recommended for furuncle will be found efficient and, in the majority of cases, successful. The principal points to observe are: to keep the parts aseptic and to promote a rapid separation of the slough. When there is indication of this latter, the slough should be picked out and antiseptics applied. The ulcer which results will terminate in a firm scar.

Carbuncle is a grave disorder which frequently ends in the death of the patient, and the progress is always doubtful.

POISONED WOUNDS. In this category are included a large number of phlegmonous lesions of more or less serious import. They are due to a direct wound accompanied by the introduction of a poison. They are due generally to the bites of insects, snakes, scorpions, centipedes and spiders. The effects may be purely local or there may exist constitutional symptoms besides. Snake-bites are among the latter category, but are not considered here as being without the range of dermatology. The lesions are highly inflammatory and inclined to suppurate. In these, campho-phenique, applied pure, is especially serviceable.

DISSECTION WOUNDS. These are quite common among those engaged in dissecting cadavers. Pustules appear involving either small patches or large areas. Or small abscesses varying in number may appear. The parts generally implicated are the hands, fingers and arms. Dissection wounds may be local or constitutional in character.

In the more serious cases lymphangitis of a more or less generalized character appears, and cellulitis of a serious character is apt to develop. The process may go on to suppuration and pyemia result.

The treatment should be to give free drainage and externally antiseptic measures together with constitutional remedies. At times the trouble is such a serious one that despite all treatment it is found necessary to amputate in order that life may be saved.

ANTHRAX.

Syn.—Pustula Maligna, Malignant Pustule, Charbon.

This is a very serious trouble, which, fortunately, does not occur very frequently. The first symptoms observed are a burning and itching at the site which is to be the seat of the lesion. The first indication is a livid, red papule. This gives way to a flabby bulla or pustule which breaks down and is followed by a black eschar of a gangrenous nature. Around this a number of vesicles or pustules appear, and edema of a marked character is to be seen. The integument about the lesion has a violaceous hue.

The portions most frequently attacked are the hands, face and neck, and it is in butchers and knackers that it is most frequently seen. It is due to the anthrax bacillus and contracted from cattle suffering from murrain or splenic fever.

The process may be localized or become general. In the latter case septic fever of a virulent type sets in and death may supervene in a few days or a week. For this reason, treatment should be energetic and radical. Excision of the lesion, with free scraping and curetting and strong antiseptic dressings is the proper method to follow.

EQUINIA.

Syn.—Glanders, Farcy.

This is a rare affection, which is observed in hostlers and such as are brought into frequent and close contact with horses. As glanders is not often seen in horses, the number of cases of the human variety is correspondingly small. The trouble is an infectious one whose period of incubation varies from two to three weeks. The trouble is ushered in by malaise, fever and rigors giving evidence of the general involvement. The first eruption consists of papules, pustules and consequent ulcers of a bad nature. Later on nodules of a subcutaneous nature manifest themselves and these break down and suppurate, resulting eventually in bad-looking ulcers with offensive secretions. Lymphangitis is an invariable accompaniment.

The disease may be acute or chronic. In the acute form the mucous membranes are seriously affected and septic symptoms develop in a comparatively short space of time. Delirium sets in as a result of the septicemia and the case terminates in coma and death.

The chronic form may last from four to six months and recover, or an acute attack may supervene and end the life of the patient.

The treatment internally should be directed to the septicemic condition and, locally, the Paquelin cautery or equally efficient means and strong antiseptic applications.

DERMATITIS.

This is a general term employed to designate simple inflammation of the skin. We find the cardinal symptoms of inflammation present—pain, heat, redness, and swelling—and, in addition, itching and multiform eruptions. The intensity of the process varies in different cases. There are four principal classes: *Dermatitis traumatica*, *d. venenata*, *d. calorica* and *d. medicamentosa*.

Dermatitis traumatica is due to external influences of a mechanical nature which occasion a loss of the epidermis, and of the corium, accompanied by inflammation. Pigmentation is apt to follow. The remedial measures are protective and anti-phlogistic.

Dermatitis venenata includes those inflammations of the skin due to contact with poisons, either vegetable or mineral. That due to *rhus venenata*, *rhus toxicodendron*, nettle, meze-reon, arnica, or other plants of the same families is apt to become highly inflammatory, accompanied by marked edema, pain, heat and itching. The dermatitis due to the *rhus* family is most often encountered, the effects of poison oak and poison ivy being well known. The eruption begins as an erythema, becomes vesicular and may continue in a pustular form or develope into blebs. The treatment is soothing. Alkalies externally (to neutralize the toxicodendric acid) followed by soothing ointments is the best. Solution of sulphate of zinc is also beneficial. It is said that fluid extract of *grindelia robusta*, one drachm to four ounces of water, is very good.

In the case of poisoning due to aniline dyes in stockings and underwear, removal of the clothing together with soothing measures is sufficient.

Arnica, croton oil, mustard, mercurial ointment, acids, strong alkalies, cantharides, etc., all exert an influence in producing dermatitis. The treatment suggests itself.

Dermatitis calorica is caused by both heat and cold resulting in burns and frost-bites (*pernio*). The lesions may be erythematous, vesicular, bullous or gangrenous, according to the severity of the process.

An excellent treatment in these cases is the continuous application of the following:

℞ Campho-phenique	.....	℥ss.
Lanolin,		
Ung. aquæ rosæ	.....	aa, ℥ij.

M.

Dermatitis Gangrenosa may occur in small patches or in diffused areas. The causes of this form are obscure. It generally occurs in violaceous or purplish patches, which afterwards ulcerate, a slough being thrown off. In *Raynaud's disease* (symmetrical gangrene) there is a symmetrical involvement of the extremities—generally in the feet. This form is uncommon. The treatment should be adapted to the conditions observed.

DERMATITIS MEDICAMENTOSA.

Syn.—Drug Eruptions, Medicinal Rashes.

Dermatitis medicamentosa, due to the ingestion of various medicinal agents, is seen rather frequently, the most common being the pustular dermatoses due to the ingestion of bromine and iodine compounds. We have all the lesions represented in this class of dermatoses. Morphia will produce urticaria, or erythematous macules, and nearly every drug has an influence of a similar character. By careful observation, the physician can trace the origin of these eruptions and a simple withdrawal of the exciting cause—the drug—will be followed by a spontaneous recovery.

The following is a list of the principal remedies and of the eruptions they produce. It will readily be seen that they are not all really to be classed under the head of dermatitis; but in order to avoid confusion, all the medicinal eruptions have been included in this portion of the book, as it will render quick reference easy and the descriptions themselves will suffice to indicate to what category each one properly belongs. The drugs are given in alphabetical order.

ACIDUM BENZOICUM—SODII BENZOAS.

Friar's balsam, tincture of benzoin, benzoic acid and benzoate of soda produce an itching erythematous eruption, purpura urticans or a discrete or confluent fine papular eruption of a bright red color.

ACIDUM BORICUM—SODII BORAS.

Externally borax will, after continuous use, produce an erythematous or impetiginous eruption. Internally, it produces

an erythema, papules, bullæ or a scaly eruption, simulating psoriasis. The localities attacked vary, although in the last the flexor aspects of the limbs suffer.

ACIDUM CARBOLICUM.

This commonly employed agent, when directly applied to the integument, may produce erythema and all the various degrees of inflammation, including destruction of the tissues, ulceration and gangrene. The introduction of this acid in solution in mucous cavities, sinuses and suppurating foci may be followed by inflammatory reaction. In its internal administration, as well as external use, erythema is the most common effect observed upon the skin. An eczematous eruption is occasionally met with. It is not unusual for the eruption to be papular in character.

ACIDUM CHRYSOPHANICUM—CHRYSAROBIN.

From the amount of the use of this agent the eruptions caused by it are comparatively well understood. Applied locally it produces a marked hyperemia of a peculiar purple or prune-juice color which does not readily disappear and which extends beyond the area of application. Then we have erythema of a bright color, accompanying which there is more or less tumefaction of the skin. A papular eruption is observed simulating acne, as some pustules may form and comedones appear. Pustules and furuncles are also caused by this medicament and the lesions are markedly painful. If the remedy be applied to the face and head freely, an erysipelas-like condition is apt to supervene. In many of the more marked eruptions caused by chrysarobin, exfoliation is apt to occur.

ACIDUM NITRICUM.

Used externally in its pure state, it cauterizes. If diluted, small discrete papules appear, followed by pustules. These give way to small ulcerations with a pseudo-membrane. Internally, a fine pustular eruption follows when the acid is used in medicinal doses.

ACIDUM PYROGALLICUM—PYROGALLOL.

This agent, which is only used externally, is quite irritating, producing erythema, erythemato-vesicular eruptions and even inflammations of a high type. Dermatitis, ulceration and sloughing may follow its use in no stronger form than a ten per cent. ointment. It always produces more or less inflammatory reaction in the parts immediately contiguous to that where it is applied.

ACIDUM SALICYLICUM—SODII SALICYLAS.

This commonly employed remedy and its salts produce various eruptions of diverse character. Used externally it produces an erythema frequently accompanied by vesicles, and, if strong, desquamation will follow its use. Internally erythema and vesicular eruptions are by no means uncommon manifestations of its action. Urticaria is one of the common forms of cutaneous eruption following its ingestion. Purpura, manifested as petechiæ and vibices is also observed to follow its use. Scarlatiniform erythema, accompanied by a red, angry injection of the conjunctivæ and throat, is also seen. False measles owes its origin to this medicament in some cases. Amongst the most severe complications caused by the salicylic acid compounds is gangrene. It must not be forgotten, however, that some of the erythemata caused by this agent are accompanied by edema and may thus lead a careless observer into error.

ACIDUM TANNICUM.

The only reference to this records an erythema of the face and neck following its use.

ACONITUM.

An irritable, itching, vesicular eruption follows the use of aconite internally or externally. Pustules and blebs have also been observed to follow the internal use of this drug.

AMYGDALA AMARA.

The hydrocyanic acid contained in bitter almonds and cherry-laurel water causes erythema after the external use of these agents or their preparations. As a rule, urticaria follows the internal use of these.

ANACARDIUM.

The oil of anacardium or cashew nut is markedly irritating, producing dermatitis and erysipelas. The process spreads to quite a distance. Papules, vesicles, pustules, crusts and desquamation are observed. Eczematous vesicles and bullæ also occur. In severe cases erysipelas supervenes, and it is of a marked degree. Itching, burning and swelling are common symptoms.

ANTIMONIUM—ANTIMONII ET POTASSII TARTRAS.

When applied externally tartar emetic produces an eruption resembling small-pox. Hyperemia first appears, then papules,

followed by vesicles which change into pustules. These latter have crusts about the fifth day and leave scars. If the application be too strong ulcers will form. A peculiarity of the action of this agent is that when applied at distant parts eruptions around the arms or about the genitals are apt to appear. Internally administered it produces a vesiculo-pustular eruption or urticarial and pustular lesions. At times a bright red rash will announce the cutaneous effects of the use of antimony.

ANTIPYRINE.

Owing to the extensive use of this antithermic agent the eruptions it produces have been noted in a large number of cases. Usually an erythema is produced. The patches are small, irregularly circular, somewhat elevated and having a tendency to coalesce. Sweating of a marked character and more or less severe itching often accompany the rash. Desquamation is not an unusual termination, which latter occurs in five or six days. The chest, abdomen and back are most frequently attacked, although the extremities may suffer. The extensor surfaces are most usually attacked. The face and neck are not frequently the seat of eruption. It is not unusual for a very small patch to show itself in a locality. Large doses of the drug are not necessary to produce its effects on the skin. Measly and purpuric patches are occasionally seen.

ARGENTI NITRAS.

Erythema and papules attended with pruritus occur after the ingestion of nitrate of silver. Argyria, of which mention is made elsewhere, is a stain following its long continued use. It is most marked on the face and flexor surfaces.

ARNICA.

This commonly used agent is an irritant when used externally, producing an eruption analogous to that of the rhus. Erythema is first seen, followed by papules which soon change to vesicles. These last become confluent and form bullæ. A marked dermatitis is usually the ultimate result. It is not unusual to find an eczema resulting. Purpura, and fatal erysipelas have been observed to follow the application of the tincture of arnica. Used internally, arnica is apt to produce erythema attended by formication and tingling.

ARSENICUM.

This much used as well as abused drug produces a number of severe lesions when its administration is not properly watched.

Used externally it produces dermatitis when diluted. Used stronger it destroys the tissues and may cause death in a comparatively short space of time. For this reason the strong applications are not so dangerous, as their caustic action prevents absorption. Arsenical poisoning from the use of powders, in the manufacture of artificial flowers, wall-paper, carpets, dyes, etc., is of common occurrence. The aniline dyes nearly all contain arsenic, which accounts for the erythematous, vesicular, papular, and eczematous eruptions caused by articles of underwear dyed with these colors. When taken internally, arsenious acid or its medicinal preparations acts in a similar manner, producing analogous eruptions. Erythema is a common form accompanied by edema of the lids. The trunk and flexor surfaces of the limbs are most frequently attacked. Upon ceasing to give the medicine the eruption disappears in four or five days, and is followed by marked desquamation. In the papular form the lesions are discrete, forming disseminated patches being of the size of a pin-head. In five or six days the eruption disappears and is followed by furfuraceous desquamation. Pruritus occasionally attends this form. Urticaria, accompanied by very marked itching, is a very common form. Vesicular eruptions occur in some cases, and especially herpes labialis and progenitalis. Zona-like eruptions, unaccompanied by neuralgia, are also seen. Pustular and ulcerative forms are also seen in those peculiarly susceptible to the action of the drug. Finally, greyish or brownish stains are seen upon the face and body after the prolonged use of arsenic. The entire body may be discolored by the coalescing of the stains. Alopecia areata and defluvium capillorum are other forms due to arsenical intoxication.

BALSAMUM PERUVIANUM.

This produces an erythematous or eczematous eruption. At times urticaria follows its external use.

BELLADONNA—ATROPIA.

Used internally or externally, belladonna or its alkaloid produces a deep, bright red, diffuse erythema simulating scarlatina. Sometimes fine papules or vesicles accompany the rash. Herpes and erysipelatos inflammation follow the external use of belladonna. The importance of this rash lies in its close resemblance to scarlatina, but a diagnosis can be easily made, as it is unaccompanied by any general symptoms.

BENZOLE—BENZINE.

The external use of these agents as parasitocides may bring on an erythema if the skin be tender.

BROMINE—BROMIDES.

The eruptions produced by the injection of bromine and the bromides are quite numerous and, in some cases, quite serious. The simplest form is the erythematous occurring in a diffused form on the lower extremities, and quite painful. Another form is as bright or dusky red macules, sometimes with subcutaneous induration. Desquamation follows its disappearance. The urticarial form is not common and generally occurs disseminated over the entire body. The papular eruption produced by the bromides is most often the precursor of "bromic acne." This latter is the most common and best known form of the bromic eruptions. It is a papulo-pustular eruption occurring in the same localities as acne and closely simulating that disease. It seems to prefer hairy parts and those provided with numerous sebaceous glands. In one to three weeks after suspending the drug the lesions disappear, sometimes leaving scars. A modification of the acne is a furuncular form in which boils appear. These lesions are comparatively small and devoid of the core. Ulcers of irregular form sometimes rapidly follow the pustular manifestations of bromine intoxication. Among the unusual forms of bromine eruption which have been recorded may be mentioned the verrucose, the vesicular and the bullous, but they are not sufficiently numerous to admit of detailed description at this time.

CALX SULPHURATA—SULPHIDE OF CALCIUM.

This remedy, whose use has been revived, produces pustules and furuncles. The latter are most commonly observed to follow its administration. The lesions are very widely disseminated and disappear as soon as the sulphide of calcium is suspended.

CANNABIS INDICA.

Numbness and tingling of the skin is produced by cannabis indica. The only case of an eruption observed occurred in the form of papules surmounted by vesicles which shrivelled and dropped off.

CANTHARIS.

Used externally this agent causes pain, redness, vesication and the production of bullæ. Eczema and impetigo frequently

follow the application of a blister. The eruption may not only extend beyond the part primarily affected but even become generalized. Erythematous and papular eruptions follow its internal use as well as vesicular, pustular or inflammatory involvement of the skin of the penis and scrotum.

CAPRICUM.

This irritant, when applied externally, produces burning, smarting, pain and redness, or even vesication. When taken internally in large doses an erythematous or even papulo-vesicular eruption accompanied by a marked burning and itching will occur.

CHLORAL.

Used externally it causes pain and a burning sensation. It is a rapid vesicant as well. Taken internally it produces a diffuse hyperemia, occurring in a localized manner, at times, on the face and about the larger joints. It appears suddenly, remains for a few hours, and disappears rapidly, leaving no after-effects. The papular and urticarial, as well as infiltrated forms of eruption, have been noted. A vesicular form, which may become pustular, has been observed. In the petechial form a large area is involved.

CINCHONA-QUININÆ SULPHAS.

Workers in quinine factories suffer from eczematous, multi-form eruptions occurring in those portions of the skin which are exposed. Those covered parts which have the thinnest integument are also apt to be attacked. Erythema and urticaria sometimes follow the application of preparations containing quinine. When taken internally quinine is most apt to produce erythema. However, every form of the elementary lesion has been observed to occur as a result of taking the drug.

CONIUM.

When taken in large doses, not toxic, conium produces an erythematous or papular eruption. In addition diaphoresis is observed.

COPAIBA AND CUBEBS.

These agents produce the so-called "balsamic eruptions." The eruption seems to have an elective affinity for certain parts of the body, such as the hands and feet, wrists and ankles, and the abdomen and breast. The erythematous and papular form is the most common, appearing preferably about the larger joints. The patches are separated by normal skin sometimes coalescing.

Itching is generally marked. A furfuraceous desquamation may follow its disappearance. One of the manners in which the eruption shows itself is in the form of wheals, with more or less edema of the face. The vesicular and bullous forms are unusual, although occasionally observed. In the urticarial and erythematous forms petechiæ are frequently observed.

DIGITALIS.

Externally this agent produces irritation of the skin. When taken internally it produces reddish papules or an erysipelatoid inflammation. Desquamation is flaky and abundant. The eruption appears a few days after cessation of the drug.

DULCAMARA.

Increased sensitiveness and erythema of the skin follow the internal use of this drug.

ERGOT.

Ergotism is rare as the result of the administration of ergot. A vesicular eruption followed by petechiæ is the result of a long-continued use of this drug. It is not usual to observe gangrene follow.

FERRUM—IODIDE OF IRON.

The eruption produced by iron is an acne. The face, breast and back are most commonly implicated, more particularly in women.

HYDRARGYRUM—MERCURY.

The external application of mercury, either in the form of mercurial ointment or bichloride preparations is apt to produce irritation, showing itself as a slight erythema. If long continued or strong a marked dermatitis will come on and even sloughing of the skin. The internal use of mercury will produce hydrargyria, which in the mild form attacks the internal surface of the thighs, the groin, scrotum and lower part of the abdomen, appearing as reddish patches composed of minute vesicles attended with intense pruritus. A more severe form may follow this, showing itself as an intense redness upon which large vesicles distended with purulent fluid are found. These burst, crust over and desquamation in flakes occurs. High fever is a concomitant. If the mercury be continued the skin becomes swollen and covered with confluent vesicles or bullæ filled with puriform contents. Desquamation in large flakes takes place. Nearly all the eruptive lesions have been described as following the use of mercury.

HYOSCYAMUS.

Burning and itching of the skin is first felt. This is followed by erythema with more or less edema and occasionally some urticaria. Pustular and purpuric eruptions are also noted at times.

IODINE—IODIDES.

Locally, iodine produces burning, itching and some pain. Desquamation follows its application. At a distance from its point of application papules, pustules or even bullæ may appear. A number of eruptions are observed, varying in intensity. The erythematous form is seen in the face, chest and fore-arms. The redness may be diffuse or in spots. The papular and urticarial form of eruption appears as irregularly grouped papules of various sizes. Wheals are sometimes seen to accompany the papules, the eruption being chiefly on the extremities. A vesicular eruption is occasionally seen to develop in the erythematous. Among the rarer forms is the bullous, of which but a few instances are recorded. This occurs in patients whose systems are depressed. The papulo-pustular form is undoubtedly the most common as well as typical of iodine eruptions. It appears where acne is generally seen, but may be observed in other parts, involving the entire integument at times. Petechiæ, millet-seed in size, are also seen, but this eruption is a rare one. The nodular form, which is painful, is seen, but disappears readily. It is not rare to see a polymorphous eruption appear as evidence of the influence of the iodides.

iodoform.

The external use produces erythema, but the inflammation which has been excited may go on to the formation of vesicles and bullæ. It is necessary that an idiosyncrasy exist for the production of an eruption.

IPECACUANHA.

Applying this remedy for a long time leads to the formation of papules, vesicles and pustules which heal readily.

NUX VOMICA—STRYCHNIA.

This remedy taken internally produces itching and formication or diaphoresis and a miliary eruption.

OLEUM CADINI.

This produces an erythematous or papular eruption extending beyond the point of application. Or it may produce a tar acne, each lesion being perforated by a hair.

OLEUM MORRHUÆ.

Internally this may cause a miliary or eczematous eruption. It may also produce an acne.

OLEUM RICINI.

Pruritus and erythema are said to have been caused by the use of this oil.

OLEUM TIGLII.

Applied externally croton oil is a vesicant. Redness, followed or not by papules, and then vesicles becoming pustules characterizes the eruption. Occasionally bullæ appear whose cells are easily ruptured. Secondary vesicular crops may appear, especially on the face and genitals, by accidental transference.

OPIUM—MORPHIA.

Opium produces scarlatiniform or measly eruption preceded by itching and burning. It is followed by slight desquamation.

Morphia produces intense pruritus, edema and wheals. Whilst vesicular, papular and ulcerative lesions are seen the scarlatiniform rash is probably the most commonly observed eruption.

PHOSPHORUS—ACIDUM PHOSPHORICUM.

Purpura, pemphigoid eruptions, and bullous eruptions have been observed as the results of taking phosphorus and its preparations.

PIX BURGUNDICA.

After prolonged applications this produces vesicular and pustular lesions which may persist for a long time and even eventually develop into an eczema.

PIX LIQUIDA—TAR.

Externally applied, tar may cause an erythematous, papular, vesicular or pustular eruption. The most common is tar acne, which appears as small, round, dark red nodules of a persistent character. It takes a month for these to disappear. A peculiarity is that the center of each papule has a small black, tarry point at its apex.

Internally, tar produces a copious redness.

PLUMBUM—PLUMBI ACETAS—PLUMBI CARBONAS.

Used externally lead salts may discolor the skin. Internal employment may cause an erythema of the skin or petechiæ.

PODOPHYLLUM PELTATUM.

Applied externally this drug is an irritant. A tincture will act as a rubefacient and vesicant.

POTASSII BICHROMAS.¹

Externally this mordant produces dermatitis. The eruptions are papular and pustular on the hands and forearms, as well as other exposed parts. Deep ulcers and sloughs are apt to occur, not only in the skin, but the mucous membranes as well.

POTASSII CHLORAS.

A very few cases have been observed where an eruption of red macules followed the internal use of this drug.

RHUS TOXICODENDRON—RHUS VENENATA—RHUS VERNIX.

The eruption caused by poison oak and ivy has already been described, and will be omitted here.

SANTONINUM—SODII SANTONAS.

Small discrete vesicles on the trunk and limbs or urticarial wheals have been observed to follow the ingestion of santonine or santonate of soda.

SINAPIS.

This popular counter-irritant produces burning, accompanied by erythema. If it be applied for some time vesication and even ulceration may follow.

STRAMONIUM.

The most common eruption resulting from the administration of stramonium is erythema, scarlatinoid in character. The color is very bright and there is burning and itching. Edema may accompany the rash.

SULPHUR.

Externally this agent is an irritant which may cause papules and vesicles which are painful and confluent. Pustules may also result in consequence of the irritation. The internal use will produce a dark discoloration and irritation of the skin. Boils are not an unusual result of the prolonged internal use of sulphur.

TANACETUM—TANSY.

One case of varioliform eruption, following the ingestion of an enormous dose of this medicine, has been observed.

THAPSIA.

This, when externally applied, produces an intense miliary eruption similar to that produced by croton oil. A pustular eruption may appear at a distance from the point of application.

TURPENTINE—OLEUM TEREBINTHINÆ.

Applied externally, this produces irritation, vesicles, blisters and an obstinate dermatitis. Taken internally, it produces a wine-colored erythema accompanied or not by a profuse eruption of minute papules changing to vesicles and pustules. The eruption is eczematous in form and is very stubborn and persistent.

VERATRIA—VERATRUM VIRIDE.

Veratria, which is only used externally, is irritant in its action on the skin. Tingling, heat and smarting are experienced in different parts of the body. If the drug be concentrated, it produces erythema, and even pustules and petechiæ.

Veratrum viride, externally, produces redness and burning. Internally it causes an erythema, accompanied by sensations of pain. An eruption of pustules has also been observed, following its internal use.

CLASS IV.—HEMORRHAGES.

Cutaneous hemorrhages occur either by extravasation or by diapedesis. When they are the result of external injury they are idiopathic; or they may be symptomatic, as the expression of some internal disturbance. The appearances presented are known as petechiæ, vibices, ecchymoses and ecchymomata.

Petechiæ are roundish, ovalish or irregular macules of a purplish hue, varying in size from a pin-point to a thumb-nail, and not disappearing under pressure.

Vibices are similar macules, long, narrow and streak-like, varying in length from a few lines to several inches.

Ecchymoses are large, irregular, non-elevated lesions of the same general character.

Ecchymomata are extensive extravasations, deep-seated, flat or elevated, and various in size and shape, occurring chiefly in those localities in which the connective tissue is loose.

PURPURA SIMPLEX.

Syn.—Hemorrhæa Petechialis.

There are three forms of purpura which are met with, differing from each other in appearance, etiology and in the general symptoms which accompany them. These forms are: purpura simplex, purpura rheumatica and purpura hemorrhagica.

Purpura simplex is rarely accompanied by any general disturbance. It shows itself as reddish, claret-colored, roundish or irregular hemorrhagic macules appearing quite suddenly. The size of these lesions varies from a pin-point to a split-pea, and the spots generally occur upon the lower extremities, symmetri-



PURPURA SIMPLEX.

cally; sometimes larger areas are involved (See Plate XIX). There are no subjective symptoms connected with the eruption. Occasionally the patient suffers some malaise and loss of appetite previous to the appearance of the lesions. It is not an unusual thing to find the integument somewhat tender and swollen, and a gradual increase in size of the lesions may occur during a few days, when it comes to a standstill. In its retrograde evolution the lesions undergo changes in color, becoming blue, yellowish, greenish and finally returning to the normal.

Although observed in early adult life, this form is seen most often in the old. Its duration varies from fifteen days to several months, and crops may successively appear. The spots are distinguished from insect bites, which they resemble, by the presence in the latter of a central hemorrhagic point, surrounded by congestion.

PURPURA RHEUMATICA.

Syn.—Peliosis Rheumatica.

This is a variety in which the prodromal symptoms are marked. The most prominent of these are the rheumatic pains about the joints. The arms, thighs and legs are generally the seat of the eruption, although the abdomen is frequently involved. The hemorrhagic spots are reddish or purplish in color, the size varying from a split-pea to the finger-nail. As it fades away, the eruption assumes various shades, such as yellow and green. This variety may last for months, relapses taking place. It is sometimes difficult to make a diagnosis, but close inspection will show its hemorrhagic character. Simple pressure will show the persistence of the macules, thus differentiating them. The plainly marked rheumatic symptoms should be sufficient to draw attention to the variety of the lesions, and this is important from a therapeutic point of view.

PURPURA HEMORRHAGICA.

Syn.—Land Scurvy, Morbus Maculosus Werlhoffii.

This is beyond doubt the most severe form of purpura, being ushered in by marked premonitory symptoms. These symptoms consist of a marked general malaise, rigors, fever, a general feeling of lassitude and weakness in the limbs, accompanied by headache. The macules first appear upon the limbs, spreading rapidly to the trunk. All varieties of shapes are seen and in size they vary from the thumb-nail to the palm. Sometimes several patches coalesce. At times, more or less severe hemorrhages occur from the mouth, nostrils, gums, bowels, bladder, etc. The severity of the attack may be such as to cause death in a short time, from exhaustion, or it may continue for months with relapses. Each time a relapse occurs the patient becomes more debilitated.

In purpura we have a pure hemorrhage occurring in the skin. The blood is extravasated in the corium, subcutaneous tissues or about the glands and follicles. After this has ceased there is a gradual absorption which takes place and the blood elements disappear slowly. This is the reason why so many colors characterize this process. It is neither a stasis nor an erythema, and on this account pressure does not cause a disappearance or paling of the lesions.

The treatment adopted must be according to the requirements of the case. In purpura simplex there should be given internally ergot, iron, quinine and the mineral acids. Among the last the aromatic sulphuric acid is probably the best, and followed by the most satisfactory results. Externally, cooling lotions are indicated and should be continuous. This will bring about a contraction of the blood-vessels and aid in the prevention of further hemorrhages.

In purpura rheumatica the cause at the bottom of the process must be attended to. The rheumatic condition which is present requires particular attention, as it will markedly aid in procuring a disappearance of the disease. In addition to this, the diet should be carefully attended to, as well as the hygienic surroundings of the patient. A certain amount of stimulants, in the form of malt liquors in moderate quantities, will be found of benefit. If the indications which are present require it, the treatment given for purpura simplex may be added.

In the hemorrhagic form, prompt action is necessary. As the trouble is one which occurs in "bleeders" or those affected with hemophilia it is absolutely necessary that no time be lost in promptly allaying the general symptoms which may become not only alarming, but positively dangerous to life. Ergot, quinine, iron, the mineral acids, rest and whatever is necessary as the symptoms arise should be employed. Externally, astringent lotions and ice are the applications which are most satisfactory. In this form as good a prognosis cannot be formulated as in the others. Life may terminate in a few days after the onset of the trouble, or an increasing amount of hemorrhages may terminate the existence of the individual through debility and an inability to rally from the weakness caused by loss of blood.

CLASS V.—HYPERTROPHIES.

The hypertrophic affections of the skin are, as a rule, to be looked upon as deformities, as they have no tendency to become inflammatory, nor do they undergo malignant degeneration. Any of the layers of the skin may participate in this process, singly or conjointly. The hair and nails may also become the seat of hypertrophic changes. There is generally an increase in the normal constituents of that portion of the skin which is affected by this process. In all cases there is a marked change which attracts attention.

LENTIGO.

Syn.—Freckle.

Lentigo is a hypertrophy of the pigment which is characterized by a number of pin-head to finger-nail sized, brownish spots occurring for the most part on the face and hands. It also occurs on the arms of those whose peculiar complexion seems to render them predisposed to this pigmentation, such as the red-haired. The shade of color of the macules depends a great deal upon the complexion of the individual. In negroes they are black; in red-headed persons, in whom freckles are most common, they generally have a light brown or rusty appearance. The site in which they most frequently occur is on the bridge of the nose and below the eyes. Occasionally they are black even in the white race. Freckles are most frequently seen in childhood and youth, but there seems to be a tendency for them to occur in old age as well. They occasion no discomfort whatever except from a cosmetic point of view.

They consist of an increase in the deposit of pigment, and this is intensified by direct solar rays. It is a notable fact that freckles will disappear in Winter and make their reappearance in Summer, as soon as the skin is exposed to the direct rays of the sun. This recurrence may continue for years and cease, or it may persist through adult life. When freckles are made to disappear this exposure will occasion their return.

The treatment is such as will be indicated in the consideration of chloasma.

CHLOASMA.

Syn.—Melasma, Liver Mark, Mother's Mark.

This is somewhat similar to lentigo so far as the symptoms are concerned, with the exception that in chloasma larger areas are involved and they are less in number. It occurs most frequently on the face, chest, abdomen and hands. It may occur at any age after puberty, or even before. It is caused by direct solar heat ('tan'), sinapisms, scratching, and certain irritants applied to the skin, these constituting idiopathic forms. Among symptomatic forms are the pigmentation due to syphilis, tuberculosis, cancer, lepra, scleroderma, and other diseases. The physiological and pathological changes which take place in the uterus play such an important part in the production of chloasma as to have given rise to the classification of a separate variety, known as chloasma uterinum.

Chloasma Uterinum is that form due to uterine disorders. The face is principally affected. The abdomen and the breasts, around the nipples, are also the seat of this trouble. The latter is frequently seen in virgins. Chloasma uterinum may occur at any time from puberty to middle age, its most common cause being pregnancy. It depends also upon dysmenorrhea, chlorosis, anemia, hysteria, etc. The fundamental cause is most probably some irritation of or change in the ganglia of the sympathetic nervous system.

The treatment of chloasma demands internal treatment in its symptomatic form only, and it should be directed to the condition present. If it be due to dysmenorrhea or some similar uterine disorder, it is of paramount importance to relieve the condition. Locally, the best application is bichloride of mercury

which may be given in varying degrees of strength. A lotion such as the following may be used:

℞ Hydrargyri bichloridi.....	gr. iv.
Zinci sulphatis	℥ss.
Alcoholis	℥ij.

M. Sig. Apply morning and evening.

In case the action of the bichloride is feared, the following is an efficient ointment:

℞ Resorcini	℥ss.
Ung. aquæ rosæ	℥ij.
Silicis	℥iij.

M. Sig.: Apply to the affected parts.

Other remedies may be employed, such as sulphur, sapo viridis, ammoniated mercury, subnitrate of bismuth, acetic acid, etc., in various combinations. Veratria, ten to twenty grains to the ounce of excipient has been recommended. A rapid method consists in applying continuously to the affected part, cloths saturated with a solution of corrosive sublimate of the strength of five grains to the ounce of alcohol or water. In a few hours, a blister forms, the roof of which is carefully cut out and a bland dusting powder, such as starch, is applied. The new epidermis is without pigment, but the effect is only transitory.

Chloasma is very obstinate to treatment and even when apparently cured, will return. This is more especially true of chloasma uterinum, due to pregnancy.

ADDISON'S DISEASE.

This obscure affection is characterized in its cutaneous symptoms by a general bronzing of the skin. Darker macules may exist here and there, as well as lighter patches of skin. The buccal mucous membrane is frequently the seat of dark brown or even black spots. The cause of this curious discoloration of the skin is beyond doubt some changes in the abdominal ganglia and plexus of the sympathetic nervous system.

DISCOLORATION OF THE SKIN.

Under this term is included such changes of color as are induced by artificial means, either accidentally or by design.

Argyria, which is comparatively rare, is characterized by a bluish-gray or slate color. This is produced by the ingestion of



Fig. 21.—Tattooing.

nitrate of silver administered for epilepsy generally. Since the practice has ceased, cases of this form of discoloration are no longer observed.

Siderosis occurs chiefly on the back of the hands and in the face. It consists of small brownish spots, caused by the oxidation of steel particles which have penetrated the skin. It is most often seen in mill-stone trimmers. Drawers of gold wire are affected by similar discolorations.

Tattooing is both common and marked in appearance. The accidental and premature explosion of gunpowder, accidental cuts by hard coal, and scratches from soot-covered instruments produce it. By far the most common form, however, is that produced by design, and is common in soldiers, sailors (See Fig. 21), boys, as well as in the criminal classes, both male and female. Various designs are made, and among savages they are marks of distinction or totem signs. India ink, gunpowder, indigo and vermilion are the pigments generally employed. Their removal is often a difficult matter; but, in the majority of instances, tattooing over with papoid glycerole will prove successful.

NEVUS PIGMENTOSUS.

Syn.—Pigmentary Mole.

These growths are congenital, occurring either singly or in numbers. In form they are oval or circular, or irregular. They vary in size from a pin-head to large tumor-like masses. Sometimes the distribution is along the course of nerves. Several varieties have been named, such as *nevus spilus* where the growth is smooth; *nevus verrucosus* in which a warty, rough surface is present; *nevus mullusciformis* or *lipomatodes* a combination of fatty tumor and mole. All are pigmented and, in many (*nevus pilosus*) the growth is covered with hair. These moles grow in size for a time after the birth of the individual and then cease. They may occur singly or in numbers. These are the peculiar growths to which has been attached the idea of maternal impressions as a causative factor. The fancied resemblance of the growth to a mouse, a bat, a snake or some other animal has been responsible for many of the marvellous tales which are told.

Treatment is surgical except in the case of the smaller growths. Large ones are best excised. In the smaller ones, electrolysis is most advantageous and is radical. In the latter case, it is not necessary to introduce the needle very deeply, but it should be so employed as to completely remove the nevus without the production of a scar.

CALLOSITAS.

Syn.—Tylosis, Tyloma, Callus, Callosity.

This affection consists of indurated, circumscribed patches of thickened stratum corneum, varying in size, extent and thickness. The color varies from yellowish to yellowish-gray or yellowish-black, and is dependent upon the admixture of foreign matters. When thin, callus is translucent; but opaque when thick. It is smooth and horny. The hands and feet are most often the seat of this trouble which is, for the most part, due to friction and pressure.

There are no subjective symptoms observed except, at times, when pain is experienced through too much thickening of the callus. Cracks and fissures sometimes appear and become a source of irritation. Another complication is the formation of abscess beneath a callus. When the pus is evacuated the entire mass is thrown off. Occasionally, when such an occurrence takes place at the end of the finger, the distal phalanx may be lost, on account of the destruction of tissue which follows the ulcer resulting from the suppuration.

Callus is simply a heaping up and packing together of the horny cells of the epidermis. The condition is easily recognized and one for which treatment is not often demanded.

When it is desirable to remove this overgrowth, the exciting cause must be removed. Then, bathing in hot water, poultices, or applying pure rubber to the part will soften the mass. Sapo viridis or caustic potassa (1—2 per cent.) are also good keratolytic agents. Vinegar, acetic acid, and mercurial plaster are also good. Salicylic acid, one drachm to the ounce, is excellent. When the mass has been softened, scraping with a dull knife will

hasten its removal. Callus, however, disappears spontaneously if the causes which produce it are removed. A good combination to apply is the following:

- R Acidi salicylic 5jss.
Traumaticini 3j.
M. Sig. Apply twice daily.

CLAVUS.*Syn.*—Corn.

This is an exceedingly common trouble which affects the feet. A corn is a circumscribed callosity, generally seated on the toe, having the form of an inverted cone whose apex presses upon the corium, producing a sharp pain. Corns may occur on the sole of the foot, on the ball of the big toe, or over bunions. In these localities the pain is accentuated. The cause of this hypertrophy is friction caused by shoes which are too tight or too loose fitting. The treatment is to remove pressure and friction, and to cause a disappearance of the callosity. At the site of the corn the mucous layer of the epidermis is generally absent or greatly atrophied, leaving the papillary nerve loops bare. Cutting or paring and the measures recommended for callosity are applicable here. An efficient method is the application of the following, daily, for a week:

R	Acid. Salicylic.....	5j.
	Ext. Cannabis Indicæ	gr.x.
	Collodion	5j.
M.		

At the end of that time soak the corn in warm water for some time and it will come off. If it has not entirely disappeared a second course of this treatment will produce the desired effect, provided that suitable shoes are worn.

MALUM PERFORANS.

Syn.—Malum Perforans Pedis, Perforating Ulcer of Foot.

Malum perforans first appears as a thickening of the epidermis on the dorsum of the hand or foot. A sinus soon forms which penetrates as deep down as the bone. The nails become altered, hairs grow on the dorsum of the affected extremity, and more or less destruction of tissue takes place. It is generally the local manifestation of certain spinal and nerve lesions. It is not unusual to find it in anesthetic leprosy. The treatment is purely surgical, agents tending to strengthen the system at large being also administered. In some cases it is necessary to resort to amputation of the affected part.



CORNU CUTANEUM.

CORNU CUTANEUM.

Syn.—Cutaneous Horn.

This disease, or rather deformity, while rare, is full of interest. The growth is solid, hard and dry, and its surface appears rough or wrinkled. It is more or less elongated or roundish, or it may occur as a rough or irregular projection. The length of these horns varies from a few lines to several inches (See Plate XX). The area of the base is always the largest of any cross section of the growth. In some cases the growth seems to have a tendency to extend laterally and very little in a vertical direction. A small ridge of skin generally surrounds the base. Cutaneous horns may be single or multiple. The face, scalp and penis are the favorite sites of its occurrence. In time they drop off spontaneously, and when this occurs, the base is the seat of epithelioma.

They grow slowly, occurring in middle life, and seem to originate from a wart.

The treatment is excision and thorough cauterization of the base. In some cases, occurring upon the penis, amputation is the only certain method of relief. Early removal of these growths should always be counseled.

CORNU UNGUALE.

Syn.—Nail Horn.

This peculiar condition up to the present is an unique one. It is characterized by horny growths upon the fingers and toes somewhat curved, and several inches in length, situated at right angles to the digits. The bases of these growths occupy the nail beds of the nails, and a true nail growth surrounds one-half of the horn, the remainder consisting of hypertrophied horny cells (See Plate XXI). In the case figured it will be observed that there is a verrucous growth in the palms of the hands, the several lesions being distributed in linear fashion. No subjective symptoms are noticed, and the growths interfere but little with the ordinary manipulations the hands are called upon to perform.



CORN N UNGUALE.



VERRUCA ACUMINATA.

VERRUCA.

Syn.—Wart.

This is a circumscribed hypertrophy of the epidermis and papillæ. Warts may be hard or soft, pointed or flat, sessile or pedunculated, smooth or rugous, congenital or acquired, single or multiple. They vary in size from a pin-head to a bean. They are painless, as a rule, and occur upon the hands, feet, face, scalp, neck and genitals. Other portions of the integument, such as that covering the legs and arms and that upon the trunk, may also be the seat of these growths.

The following clinical forms are the ones most frequently observed:

Verruca acuminata or *venercal warts*, are filiform, papilliform, or have a cockscomb appearance (See Plate XXII). They are of a rosy, or bright red color, and are found upon the genitalia and upon the skin. In the former locality they grow rapidly and exuberantly; are moist, and give forth a fetid and sickening odor. Upon the skin they do not grow so rapidly, and are dry and odorless.

Verruca filiformis is the wart that is slender and threadlike. It is of the color of the normal skin, and occurs chiefly about the eyelids, and most frequently in the old.

Verruca glabra is the smooth and shining wart which is frequently seen in adults and those past middle life. It has a tendency to spread laterally to the size of the finger-nail.

Verruca plana is the flat wart, frequently pigmented, seen in adults.

Verruca senilis, as its name indicates, is met with in the old. The face, trunk and extremities are its sites of predilec-

tion, although frequently seen on the trunk. It is often pigmented, and when irritated, there is a tendency for epithelioma to form.

Verruca vulgaris is the most commonly seen. It is of the size of a split-pea, occurring chiefly upon the hands and genitalia. After a time the surface becomes rugous, and it frequently disappears spontaneously.

One of the causes of verruca is irritation, either mechanical or other. Friction, acrid discharges, etc., may cause these growths to appear. Gonorrhea and gleet cause their appearance about the genitalia. Investigations have shown that some are due to micro-organisms and that they are auto-inoculable and contagious.

The treatment is destruction of the growth. Although contended by some that, in the vulgar form, Fowler's solution, or carbonate of magnesia will cause them to disappear, these methods do not seem to be always attended with uniformly good results, except in children in whom slight friction of the growths will cause their disappearance. Still they are quite successful in some cases. The use of caustic alkalies or acids or excision is practiced by many, but electrolysis is as certain, less painful and unattended by any scars. About the genitals, excision followed by cauterization of the base, is one of the best methods. Keeping these growths dry and freely applying boric acid succeeds frequently in causing their disappearance. In some varieties of warts the application of salicylic acid in collodion, as mentioned under clavus, is attended with excellent results. An agent which is quite efficient for the purpose is hydrozone, whose action is almost always followed by a disappearance of the warts without a return.



ICHTHYOSIS HYSTRIX.

ICHTHYOSIS.

Syn.—Fish-skin Disease, Xeroderma Ichthyoides, Ichthyosis Vera, Ichthyosis Congenita.

This disease, or deformity, consists in a tendency to the excessive formation of the horny layer of the epidermis. Although congenital, it does not appear, as a rule, until the second or third month after birth. It becomes more marked then until puberty, when it usually reaches its highest state of development, but may become more marked with advancing years. Two varieties are recognized: ichthyosis simplex and ichthyosis hystrix.

Ichthyosis simplex may be limited to certain localities or it may be universal. There is marked dryness of the skin; bright, thin, pearly scales sharply separated by the normal furrows exist, a slight desquamation being present. The skin feels a little drawn and is less sensitive than unattacked portions.

Ichthyosis hystrix is a more pronounced type of the disease. The scales are piled up so that they form spinous elevations which are firmly adherent to the skin underneath (See Plate XXIII). The color here is a grey or greenish-black. This constitutes so-called "alligator skin."

Ichthyosis sebacea is characterized by rather thick scales to which there is added an admixture of sebum.

In general, the scales in this affection are adherent. The principal portions involved more severely are the knees and elbows and upper portion of the dorsum of the foot. The face is always exempt. There is an absence of perspiration noted, on account of the absence or want of development of the coil glands. The disease is hereditary, and in Paraguay endemic among the males. The diagnosis is easily made.

Treatment is entirely palliative. Remove the scales with *sapo viridis* and hot baths; or, in mild cases, the Turkish bath will loosen them. Warm or vapor baths should be taken regularly; and after each bath, one of the following ointments may be rubbed in:

Rx	Ung. aquæ rosæ,	
	Lanolin (puriss)	aa, ʒiv.
M.		
Rx	Adipis benzoati,	
	Ung. aquæ rosæ	aa, ʒiv.
M.		
Rx	Adipis benzoati	ʒij.
	Glycerinæ	ʒi.
	Ung. petrolei	ʒij.
M.		

This disease is incurable. A few cases are reported as having recovered spontaneously. The administration of nerve tonics is frequently of benefit.

XEROSIS.

Syn.—Xeroderma.

This disease is similar to asteatosis and to ichthyosis. It appears to hold a middle place between the two. It is congenital. The epidermis is dry, rough and harsh, shedding furfuraceous scales. The extremities and limbs are the portions most frequently affected, especially upon their outer aspects. The treatment to be pursued is the same as that in ichthyosis, and better results may be expected.

KERATOSIS PILARIS.

Syn.—Lichen Pilaris.

This affection is of comparatively frequent occurrence. It is characterized by a number of discrete conical elevations of the size of a pin-head, of a grey or whitish color, sometimes surrounded by an areola, and each lesion is centrally pierced by a hair. Between these lesions the skin is dry and harsh. The feeling imparted to the hand, passed lightly over the eruption, is the same as that experienced from a nutmeg-grater. By scratching one of these elevations freedom is given to an imprisoned, curled hair, which then emerges.

The limbs are the localities most often invaded, especially on the flexor surfaces of the thighs. Males are most frequently the subjects of it. It is only where lanugo hairs exist that we find it.

It is a chronic affection, attended with mild itching, in some cases. The causes are unknown, want of cleanliness playing but a secondary part. Adults are generally attacked, and males most frequently. The lesions consist of an accumulation of horny cells about the openings of the hair follicles. Sebum mixes with this, and forms a hard mass which imprisons the hair, and the pressure exerted leads to the erythema observed.

There is very little difficulty in recognizing the trouble even when scratching has produced inflammatory symptoms.

The treatment is, in the main, that of ichthyosis. There seems to be a tendency to the ichthyotic process in individuals affected with keratosis pilaris, as shown by the general state of the skin. Such internal remedies as will produce stimulation of the cutaneous glands are always of benefit, and will greatly aid in procuring a disappearance of the trouble.

SCLERODERMA.

Syn.—Sclerema, Scleriosis.

In this rare affection the skin is yellowish or waxy, pigmented, having a hard feel, as if made of wood. It is indurated in plaques which are round or oval, varying in size from a small coin to the palm; or it may be ribbon-like in its distribution. There frequently exist ridges at the sides of the affected area. No subjective symptoms are present, except the hide-bound feeling caused by the induration of the integument and consequent want of elasticity. It is essentially chronic in its course, affecting the head, trunk or limbs. When the face is the seat of this disease, it has a fixed, wooden appearance, and the skin has a hard feel.

The treatment consists of baths, massage and frictions. The galvanic current also tends to produce resolution. Mild salicylic acid ointments are of benefit, but treatment must be persistent to avail.

The disease may disappear spontaneously, leaving an atrophied condition of the affected portion, or it may recur after apparently having left.

MORPHEA.

Syn.—Addison's Keloid.

Morphea is of infrequent occurrence, and is regarded by many as a stage of scleroderma. It consists of one or more discrete patches, bands or lines of a pale, whitish color, having a delicate lilac-colored areola. The patches bear a great resemblance to a piece of fat bacon let into the skin. The causes leading to this trouble are unknown. It is observed more frequently in women than in men. Atrophy takes place after the process has existed some time. The affected area may become the seat of scleroderma, a not unusual occurrence, and this has led to the idea that it is merely an earlier stage of the latter. All treatment which has been attempted up to the present has proven unsatisfactory. It sometimes disappears spontaneously however.

SCLEREMA NEONATORUM.

This affection, although congenital, is not observed until a few days after birth. There is at first an edema of the skin, which feels cooler than normal. Later on, it has a dense, hard feel and is more or less shining. The color of the skin is yellowish, reddish or violaceous. The face has a peculiar expression, due to the want of flexibility of the skin, which latter also seriously interferes with suckling, the lips being hard and wooden. The disease involves the whole surface and, as a rule, the children affected by it die early. Some have been saved by the application of warmth, massage and stimulation, accompanied by oily inunctions. It is a rare condition and those infants who do recover never arrive to maturity, but rapidly succumb to some intercurrent disease.

ELEPHANTIASIS.

Syn.—Elephantiasis Arabum, Pachydermia, Bucnemia, Elephant Leg, Barbadoes Leg.

This disease occurs chiefly in the Tropics. It begins, at first, in an attack of erysipelas or dermatitis in which the lymphatics are more or less involved. When recovery has taken place it is found that the integument of the portion involved is slightly thickened. Successive attacks take place, the thickening growing more and more until the volume and density are such as may be seen in typical cases. It is then tense, glossy and edematous. When the disease has existed some time the skin is rough, papillomatous, hanging in thick folds and more or less pigmented. Seborrhea is present, the mouths of the sebaceous follicles are patulous and the whole presents a marked deformity. In the form seen in the Temperate Zones there is not such a marked accentuation of the symptoms. The part is enlarged and remains so (See Plate XXIV) and occasions only slight inconvenience to the sufferer, not attaining the immense proportions observed in the Tropics.

The leg, arm, scrotum and penis, and the labia and clitoris are the portions generally affected. These parts attain enormous proportions and give rise to pain accompanied by a sense of weight, due to the thickening of the tissues. The cause is attributed by some to the *filaria sanguinis hominis*. The process consists in a hypertrophy of the deeper layers of the skin, in which the connective tissue participates. The lymph channels become blocked up and enormous growths result. The skin proper may attain a thickness of two inches or more.

The treatment is mainly surgical. Excision of some of the affected portions such as the scrotum, labia, etc., ligation of the



ELEPHANTIASIS.

femoral artery or of the brachial, have been followed by good results. In some cases, however, amputation becomes absolutely necessary. Electrolysis has yielded some excellent results, but this means must be employed for years to obtain any marked change for the better. In the milder cases systematic massage is useful but it must be continued for a long period of time.

DERMATOLYSIS.

Syn.—Cutis Pendula, Rhinoceros Skin.

In this rare affection we have a thickening of the skin, which feels unctuous and soft, accompanied by a hypertrophy of the subcutaneous connective tissue. In consequence of this, the skin hangs in folds which are thick and may be quite large. The only method of treatment which is successful is the excision of some of the redundancy. This peculiar condition is seen to affect the extremities generally and is not often observed about the trunk.

The so-called "elastic skin" is a form of dermatolysis which differs from the above in the fact that there is a certain amount of resiliency remaining in the integument and is not usually perceptible to the eye without further examination. In this form there is a hypertrophy (longitudinal) of the yellow elastic fibres.

DONDA NDUGU is an affection seen in Central and East Africa characterized by the appearance of white papules upon the lower extremities. A boggy swelling appears which sloughs beneath the healthy tissues.

FRAMBESIA.

Syn.—Yaws, Polypapilloma Tropica, Parangi (Ceylon), Coco (Fiji), Amboyne Button.

This is a peculiar tropical disease which has been claimed to be a modified form of syphilis, to which it bears many analogies, but with which it cannot be identified. It has an incubation period, the primary lesion being a papule which appears on the lip, breast, groin, genitals and perineum. In about a week the apex becomes yellow and a week later it discharges, and a crust is formed overlying an ulcer which may persist for a month or two.

A month after, the secondary stage occurs, ushered by fever and sometimes haematuria, epistaxis or albuminuria. Marked fever always exists. An eruption of fine papules appears on the face and neck and covers the entire body in three days. In a week these lesions are yellow at the top and increase in size and soon look like raspberries. The lesions may coalesce and form large ulcers.

A tertiary stage may occur. In this tubercles and nodules form, breaking down and being covered with crusts. The disease may end in spontaneous recovery.

As a rule, one attack procures immunity from subsequent ones. It is not auto-inoculable.

Treatment internally is limited to tonics, except in the tertiary stage, in which mercury and iodide of potassium are of value. Locally, sulphur in the first two stages, and antiseptics wherever ulcers or similar lesions appear, should be employed.

HYPERTRICHOSIS.

Syn.—Polytrichia, Hirsuties, Hairiness.

Hypertrichosis is really not an increase in the number of hairs, but in their size and length. Hairs which are normally short and fine—the lanugo hairs—suddenly grow in length as well as in diameter. Hairs which are of ordinary length, also grow to be many feet long, and their different forms produce examples of *homines pilosi*, bearded women, hairy children, etc. The chin, upper lip, sides of the face and forehead are the principal visible seats of this trouble in women. When the affected portion is covered by clothing there is but little attention paid to it (See Plate XXV). There is, however, no particular region in which this deformity appears. Any portion of the integument, where hair follicles are present, may be the seat of hypertrichosis.

Hypertrichosis may be congenital or acquired. In the former it is more apt to be general. In the acquired form it is, as a rule, local, and appears after puberty. It is found more often in persons of a dark complexion and in women with masculine peculiarities, and in those who have passed the climateric or who are sterile.

The causes are obscure. Stimulation or irritation of the skin, such as that caused by epispastics, may cause it. Spinal troubles and insanity also seem to exert an influence in its causation.

Two methods of treatment may be resorted to—the palliative and the radical. Among the former is epilation, a method which causes the hair to become stronger and to increase in growth. Shaving has the same effect. Depilatories are probably the best



HYPERTRICHOSIS.

palliative measures. The following are among the most efficient:

- ℞ Barii sulphid 5ij.
 Pulv. zinci oxidi,
 Pulv. talc Venet. aa, 5iij.
 M.
- ℞ Sodii sulphid 5ij.
 Pulv. zinci oxidi,
 Cretæ preparatæ aa, 5iij.
 M.



Fig. 22.—Jo-Jo, The Russian. Hypertrichosis of Face.

Either one is made into a paste, with water, and applied for ten or fifteen minutes. As soon as the skin feels hot it is scraped off with a dull knife, and a soothing ointment is applied. These

preparations should be used with caution. Sulphide of arsenic, quicklime, and sulphide of calcium are also used as depilatories.

Ethylate of sodium freely applied is claimed to destroy the hair completely. It should be freely and thoroughly rubbed over the surface, followed by a dressing of cold cream. It must be done under the influence of chloroform, on account of the intense pain it produces. Thin scars are apt to follow its use.

For the radical cure, there are two principal methods. In the first the hair is extracted and the follicle destroyed by twirl-



Fig. 23. Piffurd's Epilatory Forceps.

ing in it a needle whose point has been dipped in fused caustic potassa or in chromic acid. The inflammation which it provokes subsides in a few days. The other method is by electrolysis, as introduced by Hardaway and popularized by him. A fine steel broach or irido-platinum needle, connected with the negative pole of a galvanic battery (a strength of about 3 milliamperes being used), is carefully passed alongside of the hair into the follicle until the point reaches the papilla. The positive electrode is then applied to some indifferent part of the body, such as the hand. In a short time a frothing takes place at the opening of the follicle. Slight traction is made upon the hair, with a

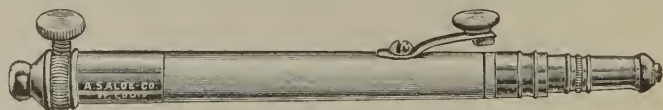


Fig. 24. Author's Electric Needle-Holder.

pair of forceps, and, if it comes out easily, the operation is complete. The current is then interrupted and the needle withdrawn. In this manner a number of hairs are treated at one sitting. A small inflammatory areola appears at the opening of the follicle, but subsides in a few days. Scars may result if the walls of the follicle have been punctured, but by using care no untoward after-effects are produced.

In those cases due to nervous disturbance it is best to treat the cause first before any local measures are attempted. Many recover from the hirsuties by these means alone.

In all the radical measures which are attempted, there is always a return of a certain percentage of the hair on account of their incomplete destruction. The papilla must be completely destroyed to insure a non-return of the hair.

ONYCHOGRYPHOSIS.

Syn.—Onychauxis.

The above is a generic term employed to designate hypertrophy of the nail (See Plate XXVI). This process may be due to general or to local causes, and it may consist in an increase in length, in breadth, or in thickness. The nails of the hand and feet may be affected, either singly or in numbers. The nails themselves often become rugous or furrowed. The color may vary from a pale yellow to black or brown. The form is at times distorted, so much so that a nail may assume the shape of a ram's horn. It is not unusual for pain to manifest itself in connection with this form of hypertrophy.

In *onyxis* or *onychia* there is more or less ulceration taking place at the nail fold, or beneath the nail, which becomes dull in color, thickened, sometimes friable. This process is seen in some cases of syphilis, and is always attended by marked pain.

Onychomycosis is a thickening of the nail due to the invasion of the parasite of ringworm or of favus. The nail assumes a dull yellowish color, is brittle and friable, and examination shows the infiltration of the fungous growth.

Paronychia, better known as "ingrowing" nail, is characterized by an increase in size, accompanied by a piercing of the tissues by the nail substance. This a particularly painful trouble, frequently accompanied by marked inflammatory symptoms.

In nearly all of these troubles the treatment is surgical. In onychomycosis it is best to scrape the nail well and apply parasitocides. Where ulceration exists, caustics are of benefit. When a perverted growth persists it is best to entirely remove



ONYCHOGRYPHOSIS.

and prevent the return of the nail. In order to accomplish this, the matrix must be completely destroyed. That portion posterior to the lunula and that beneath it must be thoroughly cauterized, or the growth of the nail substance will continue. The thermo-cautery, or galvano-cautery, are probably the best methods upon which to place any dependence.

CLASS VI.—ATROPHIES.

In this class are included those processes which bring about a degeneration or a diminution of the component parts of the skin. They may be congenital or acquired, idiopathic or symptomatic. As a rule, they are benign, so far as any danger to life is concerned. Many are to be viewed simply in the light of deformities. Others are incidental to old age, and nearly all of them are of such a nature that little, if anything, can be done to remedy the condition, so far as a radical cure is concerned, although the appearance may be ameliorated.

ALBINISM.

Syn.—Congenital Achroma, Congenital Leucoderma, Congenital Leucopathia, Congenital Leucasmus.

This is a congenital deficiency of pigment, which may be universal or partial. Those in whom there is a universal want of pigment are known as albinos. They are observed but infrequently. In them the hair is white, the pupils red, and a general absence of normal pigment can be noticed. In the partial form we see a variety which is rather more frequent. It is best observed in negroes, in whom the want of color appears in marked contrast with the rest of the skin. Such blacks as are affected in this manner are known as "piebald" negroes. In the colored races the achromic spots have a white appearance, as also in Caucasians. A close inspection of the affected areas, however, will show that it is, in reality, a pinkish color, due to the predominance of the blood-vessels of the mucous layer of the epidermis. The finer blood-vessels are plainly visible as red lines,

delicately traced upon the light background of the skin. There are no subjective symptoms connected with this deformity. It has a tendency to increase, sometimes. The deformity is hereditary in the partial form.

The condition depends upon a congenital deficiency of pigment, but the cause of this deficiency is unknown.

There is no treatment to improve the condition, which is a permanent one. Some help may be rendered by the use of harmless dyes, but these are merely of a temporary nature.

VITILIGO.

Syn.—Acquired Achroma, Acquired Leucoderma, Acquired Leucopathia, Acquired Leucasmus.

This disease is frequently met with, more particularly in negroes. It appears in the form of roundish or irregular white macules and, if the affected portion be hairy, the hairs are also

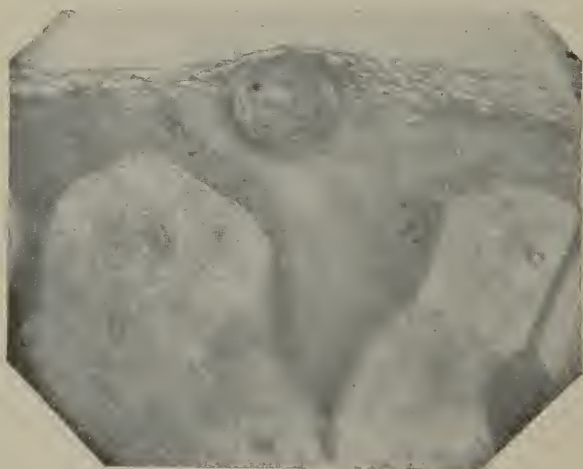


Fig. 25. Section of Vitiligo.

white. The spots are milky-white and vary in size from a silver five cent piece to large areas (See Plate XXVII). Vitiligo is an acquired achromia occurring in adults. The dorsum of the hand



VITILIGO

is generally first involved, although in some, it is never the seat or this affection. The areas are often symmetrically disposed or seem to be abruptly arrested at the median line. In some, the areas seem to be ranged equally from the middle line on each side.

A close examination of vitiligo will show that there exists an increased amount of pigment at the periphery of the lesion, suggesting that it is rather a peripheral displacement than a deficiency of pigment. This displacement from the center to the circumference would tend to confirm a nervous influence in the production of the condition and possibly suggest some method of dealing with it successfully.

There are no subjective symptoms in this trouble. The macules are more marked in Winter than in Summer. As to the causes, very little is known. Some cases are, no doubt, traceable to a nervous origin, but nothing yet has been definitely determined.

The diagnosis is to be made from chloasma and tinea versicolor.

The treatment is, in general, unsatisfactory. The local measures to be attempted are entirely cosmetic. Occasionally, the application of some stimulant like acetum cantharidis will induce a partial return of pigment. The burning-glass also acts in this manner. Ascending galvanic currents have a good effect in some cases. A dye made of a weak infusion of walnut husks is an agent which conceals the deficiency in color, but it is not lasting in its effects.

The disease has a tendency to increase until the lapse of a certain length of time, when it remains stationary.

CANITIES.

Syn.—Poliosis, Trichonosis Cana, Trichonosis Discolor, Blanching of the Hair.

This disease, better known as grayness of the hair, may be congenital or acquired, and its appearance may be slow or sudden. As a rule, it is progressive and permanent, constituting one of the physiological changes incident to old age. The portions first attacked are the temples and beard; then the vertex, and finally, the remainder of the pilous system. If the hair be thick, the portions lying nearest to the scalp are very apt to retain their color. Alkalies and various chemical agents have a bleaching effect upon the hair. Sweating has the contrary.

Nervous disturbances, such as neuralgia, fear, grief, etc., produce canities, and cases are on record in which the hair turned white in a single night. In alopecia areata the first hairs which reappear are white, and are then followed by others of a normal color.

The causes of canities are senile alterations, heredity, deficient nutrition and innervation of the hair follicle, functional and organic nervous affections, keeping the head covered, etc.

The white color is due to a want of pigment, to the uneven surface of the hair shaft, or to air bubbles in the shaft. In *ringed hair*, we have alternate layers of pigment, and the want of it producing the strange condition which is observed in children and adults.

The treatment of canities is sometimes successful by means of hypodermic injections of muriate of pilocarpine, gr. 1-12, once or twice a week. The same remedy may be administered by the mouth, in doses of gr. 1-6, in water, twice daily, but no certain results can be promised. The only other method is palliative, by the use of dyes, but this is hardly to be recommended.

ATROPHIA CUTIS.

Syn.—Atrophy of the Skin, Atrophia Cutis Propria.

Atrophy of the skin may be partial or general, idiopathic or symptomatic. The skin becomes thin, shining and more or less translucent. There are no subjective symptoms. It may occur in exhaustive diseases; or following pressure, such as is caused by tumors, callosities, etc.; or it may be due to ulcerative processes; or to certain affections of the skin, such as lupus, favus, etc. It is observed to occur in irregular forms, and its cause is undoubtedly neurotic. Thus, a traumatism to a certain part will be located across or over a nerve trunk, and the skin supplied by branches of that trunk will undergo atrophic changes in smaller or larger areas, this change being accompanied by a certain amount of sensory disturbances of the integument in the affected locality.

This change is observed in childhood, and in females most commonly, although it is also seen in adult life in both sexes.

No treatment will restore the atrophied portions to the normal, although galvanism will aid in preventing a spread of the atrophic process.

SENILE ATROPHY.

This form of atrophy of the skin is generally universal, and depends upon the degenerative processes incident to old age. It is always present in the aged to a certain degree, becoming more pronounced as years increase in number. The skin becomes thin, of a brownish tint, with pigmentary deposits here and there. All the appendages of the skin participate in the changes. The secretions are diminished in quantity, and wrinkles form, the elasticity and resiliency of the integument being markedly diminished. The corium is thinner, the papillæ are smaller, and the epidermis more or less dry and horny. The calibre of the arteries diminishes, whereas that of the veins increases, and a decrease in the normal temperature results. The whole process is a retrograde metamorphosis. Various degenerative changes take place, such as the fatty, the colloid, the amyloid, the lardaceous, the waxy, and the vitreous. Simple atrophy is the more common form observed, and these latter manifest themselves only in the presence of the same process occurring in other organs.

Nothing can be done to retard this process, which is slow and progressive.

GLOSSY SKIN, as its name implies, is an atrophy of the skin in which the integument is thin, smooth, and very glossy and shining. It is generally found upon the extremities and is due to organic nervous troubles. The face is affected at times; in such cases, the muscles participate in the change, giving rise to *hemiatrophia facialis*.



STRIÆ ATROPHICÆ.

STRIÆ ET MACULÆ ATROPHICÆ.*Syn.*—Atrophic Lines and Spots.

The lesions, in this condition, consist of lines or spots which are smooth and glistening in appearance. The skin at their site is thin and apparently distressed, presenting very much the appearance of a thin scar. In color it may be whitish, pearly or bluish. The lines vary from one to three lines in width, and one-half to several inches in length. They are generally irregular or broken. The direction is more or less oblique and, when several exist, they are parallel. Atrophic spots are roundish or ovalish in shape, varying from a millet-seed to the thumb-nail in size. They present the same peculiarities as the line and are isolated.

There are two classes of these atrophies—idiopathic and symptomatic. In the former we find the thighs, pelvis, trochanters and buttocks the seat of the lines and spots. The chest, back, and other portions are sometimes affected. Syphilis and pneumonia cause the spots about the trunk. The symptomatic form is observed upon the thighs, abdomen and mammæ. It is due to an extreme distension of the cutaneous structures. It occurs in pregnant women, in those having large abdominal and other tumors, and in fat persons. The lines caused by pregnancy are known as the *lineæ albicantes*.

In another form the lines are comparatively broad and smooth, with no breaks in their continuity (See Plate XXVIII). This form is seen to follow severe general diseases, such as typhoid fever, and would seem to be the result of nerve alterations and not due to purely mechanical causes, like the other forms are.

An atrophy of the mucous layer of the skin is present in these lesions, and the papillæ of the corium have disappeared. The connective tissue occurs in thin bundles, and the fat cells have disappeared. The stretching of the rhomboid meshes of the connective tissue is the cause of these changes in some cases.

There is no treatment for this condition, which is generally of little importance, as it occasions no inconvenience, and, besides, is not situated upon visible parts, and so causes but little annoyance from a cosmetic point of view.

AINHUM.

When first observed, this trouble was supposed to be endemic in and limited to Brazil, but a number of isolated cases has been observed in Europe and this country since the disease was first described. It attacks the toes, but more particularly the little one. A depressed ring forms in the integument of the proximal phalanx giving much the same appearance as if a string had been tightly drawn around it. In the course of time spontaneous amputation occurs. No pain attends the process beyond that due to pressure upon the distal phalanx, which becomes markedly enlarged.

The process is generally idiopathic, and its cause is nervous in nature, disintegration in nerves bringing it about. It has been observed to occur in anesthetic leprosy, but whether caused by the disease, or merely an accompanying accidental process has not been satisfactorily determined.

The changes in the tissues are atrophic, and the process is so intense that even the bones participate in it and become absorbed in part.

The natural termination of a case is spontaneous amputation at the site of the lesion. The only treatment is amputation, which is followed by a rapid repair of the tissues and a good stump.

ALOPECIA.

Syn.—Calvities, Defluvium Capillorum, Baldness.

Baldness is a deficiency in the number of hairs; seen most often upon the scalp. Three principal varieties are recognized, viz.: congenital, senile and premature.

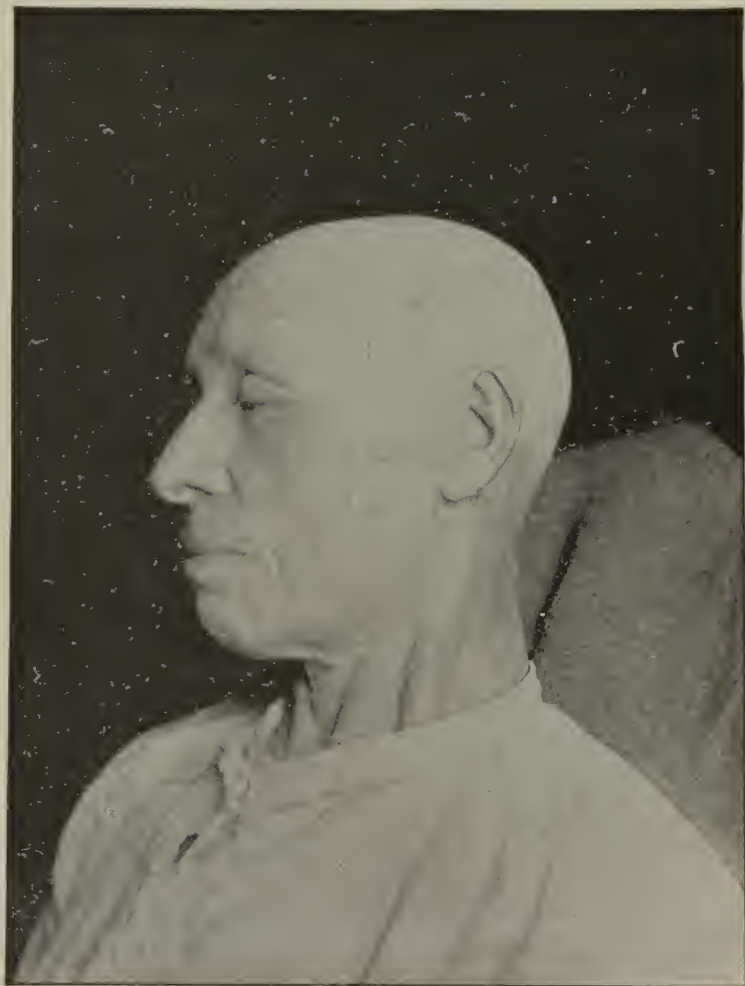
Congenital alopecia is a rare condition, due to an arrest of development of the hair papillæ and follicles. It is temporary, the retarded growth appearing later on. It may be localized or general. The locality most often affected is the scalp. But there is no particular distribution or symmetry.

Senile alopecia is symmetrical. It is seen at the vertex, the frontal region, or involving the entire calvarium. It is more commonly seen in men. When the case is one of long standing the skin is smooth, shining, and sometimes there is seborrhea oleosa present. In those who are old, atrophy of the skin is present. It is generally the scalp only which is so affected, the axillæ, pubes, chest, beard, etc., not participating in the process to any appreciable degree.

Premature (or *presenile*) *alopecia* occurs in the young and may be idiopathic or symptomatic. The idiopathic form is seen in men most often, and in those of sedentary habits. It is gradual in its development, symmetrical, invading the vertex and up the corners of the forehead. The hair is thin and not very long. It seems to be hereditary in some families. The symptomatic form of this variety of alopecia may be local or general and is due to local or general causes. Seborrhea sicca, psoriasis, the vegetable parasites, etc., are among the local causes, while erysipelas often causes a marked defluvium (See Plate XXIX). Typhoid



ERYSIPELAS.



ALOPECIA UNIVERSALIS.

fever, syphilis and leprosy are among the systemic disorders which cause alopecia (See Plate XXX).

The changes observed in senile and premature alopecia are due to the fact that the follicles are starved, the epidermis is thinner and the corium is contracted to a greater or less degree.

The treatment is essentially stimulation. A good bristle brush should be used and, in addition, *sapo viridis* as a shampoo, followed by the application of a strong sulphur ointment, beta-naphthol ointment, bichloride of mercury lotion (five grains to eight ounces), hypodermic injections of muriate of pilocarpine (gr. $\frac{1}{4}$) twice a week, or some other stimulating measure. In the symptomatic form, the disease causing the condition should receive attention, but the local treatment is not to be neglected.

An excellent stimulating lotion is the following:

Rx	Resorcini	5j.
	Beta-naphthol	Ḑj.
	Tinct. cinchon. co.....	5iij.
	Spts. myrciæ	3vj.

M. Sig. Apply to SCALP twice daily.

When a more active stimulant is needed the following should be well rubbed into the scalp twice daily:

Rx	Ol. gaultheriæ,	
	Etheris sulphuric.....	aa, 3j.

M.

There is but little hope of a return of the hair except in the symptomatic forms, although as long as the papillæ of the hairs are not destroyed it is possible for a new growth to take place.

ALOPECIA AREATA

Syn.—Area Celsi, Porrigo Decalvans, Alopecia Circumscripta, Tinea Decalvans.

This disease consists in the formation of one or more bald spots, on the head or in the beard, and these macules vary in size from a small coin to the palm of the hand. Upon examining the patches they present a round, smooth appearance. Some lanugo hairs and a few broken off ones are occasionally found in the patches, which are sharply defined, having usually a roundish or ovalish contour. The favorite sites of the patches are the parietal portions of the scalp, vertex and occiput. The patches may apparently coalesce (See Plate XXXI). The disease comes on suddenly, several patches following each other in close succession. There are no subjective symptoms observed, as a usual thing.

The majority of cases are of neurotic origin. In some, however, it appears to be due to a micro-organism, and small epidemics, produced by contagion, occur. The cause of this latter form—microsporon Audouinii, of the British, has never been satisfactorily demonstrated. The French are still of the undoubted opinion that the majority of cases are parasitic in nature, which may be true enough in France, but certainly does not hold good in this country.

The treatment depends upon the origin of the trouble. If nervous, general nerve tonics should be given, this not being required in those cases in which the trouble depends upon micro-organisms. Locally, we have many remedies to choose from, the general plan being to produce a strong stimulation of the affected areas. Thus, the patches may be blistered with tincture of cantharides, collodion or some similar preparation, every ten



ALOPECIA AREATA.

or fifteen days, a soothing dressing being employed in the intervals. Tincture of *sapo viridis*, *aqua ammonia*, oleate of mercury (5—10 per cent.), corrosive sublimate, gr. iij—iv, to the ounce of alcohol, beta-naphthol, supplemented by frictions with a coarse towel, etc., are among the stimulating applications employed. Ointments containing cantharides, chrysarobin, pyrogallic acid, and similar stimulating agents are in use. Among lotions, the following is a good one.

℞ Tinct. cantharidis,	
Tinct. capsici	aa, ʒss.
Olei ricini	ʒij.
Aquæ coloniensis	ʒi.

M.

The applications given under the head of alopecia will be found quite useful as well.

A method which gives good results is galvanism. An ascending current, properly applied, is a very satisfactory method of treating this disease.

Alopecia areata is a self-limited disease. It is not very common, and is somewhat stubborn to treatment. In a length of time, varying from two months to as many years, the hairs return. They may be white at first, but are soon replaced by a crop of the normal color. No alarm should be experienced if the first crop which appears should fall out, for it is always replaced by a new one of the natural color, which will be a permanent one. Alopecia areata generally occurs but once in a lifetime.

ALOPECIA FURFURACEA.

Syn.—Pityriasis Capitis, Alopecia Pityrodes Capillitii.

This consists of a slow thinning of the hair beginning in early life and progressing steadily. The individual hairs are very thin, short and pointed. A constant furfuraceous desquamation is present. The scales are small and thin, being rather like fine bran. They consist of small horny epithelial cells derived from the stratum corneum of the epidermis. There is also a moderate degree of seborrhea. This, however, is not necessarily a constant companion of the disease. Itching is more or less marked. The trouble is seen more often in men than in women. It may be inherited, and it has been suggested that it is contagious. Although no parasite or micro-organism has been identified as the cause, there have been epidemics observed in which a common origin in the shape of combs or brushes could be determined. For this reason the contagious nature of the trouble has been stoutly maintained by some observers. The corium is thinned in this trouble. The treatment is stimulation, together with such means as will relieve the seborrhea. These means have already been adverted to, and it is unnecessary to repeat them here.

ATROPHY OF THE HAIR.

Syn.—Atrophia Pilorum Propria.

In true atrophy of the hair, it is only this structure which is affected. The process may be observed in all wasting diseases. It also occurs as a purely idiopathic form, affecting most often the hairs of the beard. It consists of a splitting up of the hair into longitudinal fibres, atrophy of the bulb being also present to a greater or less extent. It is the hairs which are longest which are so affected. Whilst not common, it is not unusual to find the hair of the head affected in this manner in both men and women.

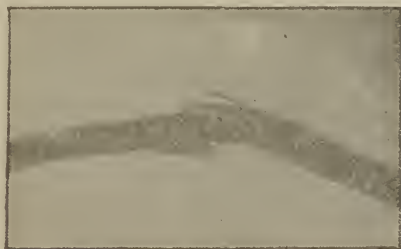


Fig. 25.—Trichorrhexis Nodosa.

Trichorrhexis nodosa, or *nodositas crinium*, is characterized by the presence of small whitish nodes on the shaft of the hair, at irregular distances, and resembling very much the nits or ova of pediculi. It is not so rare as has been generally supposed. It affects the hair of the pubes and of the beard most often, and consists of a broom-like fissuring at the points where the nodes

exist, appearing as if two brushes were stuck into each other. Before this typical condition is attained a number of stages are passed through. The first change observed consists in a swelling of the shaft of the hair. This is followed by an increase in the swelling and a splitting up of the cortex into longitudinal fibres. The swelling finally bursts, but some fibres remain, which, holding the two parts of the shaft, give it the peculiar appearance of two brushes stuck into each other at their bristle ends. It is claimed to be of neurotic origin.

Plica polonica is a matted condition of the hair, seen most frequently in Poland, and affecting women. In those cases the hair is closely matted and a mixture of filth, parasites, and the exudates of inflammation and foreign matters give it a most repulsive appearance and disagreeable smell. The entire mass of hair of the scalp, or merely limited portions, such as a tress or a plait, may be the portion subject to the change. The hairs form such a tangled mass that they cannot be separated from one another. On the other hand, cases exist in which the patients are scrupulously clean, and in whom the condition supervenes in twenty-four hours (See Plate XXXII). A microscopic examination of the hairs reveals a condition of trichorrexia, and in addition, an atrophy of the hair shaft and its medulla. The facts that it occurs after severe shocks to the nervous system, and a deficiency of nutrition of the hair exists, point to a neurotic origin. Among the Poles a superstition exists to the effect that if a plica be removed, the patient will die. The treatment of this condition consists in removal of the matted mass of hair and the administration of nerve tonics.

Piedra is also a nodose condition of the hair, in which dense, black, horny nodes, containing masses of spores, are found along the hair-shaft.

It is more than probable that the nodes are composed of masses of fringe which, by increasing in number, cause a splitting up of the cortex of the hair into fibres, and the growth continuing between these, we have the production of the nodes. The condition is a comparatively rare one, and looked upon more in the light of a curiosity.

Fragilitas crinium, or fragility of the hair, is a condition in which there exists an uneven formation of the hair-shaft, accompanied by great brittleness. In addition, the hairs split at the free extremity. It may affect a few hairs only, or numbers.

This fragility is found in those whose general condition is below par. One of the causes of the brittleness is insufficient



PLICA POLONICA.

lubrication caused by inactivity of the sebaceous glands. Another cause is the pernicious habit of frequently washing the hair with alkaline solutions or the continued application of peroxide of hydrogen for bleaching purposes.

In all these essential atrophies of the hair much care and discrimination are to be employed in their treatment. Whilst a number are amenable to treatment, there are cases in which no therapeutic means seem to be of any avail. They are by no means common and, on that account, a prognosis should always be formulated with great care.

ATROPHY OF THE NAIL.

This may be congenital or acquired. In the former case it is due to an arrest of development. In the latter, general wasting diseases, heat, cold, chemicals, etc., act as causes. The nails become thin, narrow, friable, furrowed, grooved, "eaten in," etc. The condition which is presented is so suggestive that there is no difficulty in recognizing the trouble. To treat the cause is, of course, absolutely necessary. Locally, the nail should be kept in some bland ointment and protected. For this purposes the ung. diachyli (Hebra) is among the best which may be used. This will accomplish about all that is possible to be done by topical measures.

Everything should be done to avoid contact of the nails with all such agents, especially of a chemical nature, as have a deleterious influence upon horny growths. Softening of the nails by any means should also be carefully avoided.



KELOID.

CLASS VII.—NEW GROWTHS.

The class of new growths is an important one. As a general rule, they are painless and of slow growth. This is particularly true of the connective tissue new growths. Those depending upon cellular deposits are more or less destructive, frequently malignant. The majority are not painful. Besides these, we have new growths made up of bloodvessels, of lymphatics, of muscles, and of nerves. Many of these diseases are amenable to surgical interference, others run so rapid a course, or are of such a malignant character as to defy all operative interference. Another class resist all treatment and pursue a chronic course, lasting oftentimes as long as the affected individual himself.

KELOID.

Syn.—Kelis, Kelos.

Keloid is a connective tissue new growth which manifests itself in the form of an oblong plane, and elevated ridge, or a cylindrical mass, processes being given off at the periphery in nearly all cases. The color is whitish or slightly reddened, it being somewhat lighter than the surrounding integument, in negroes. The surface is smooth and more or less shining. Over the surface bloodvessels are to be seen branching in various directions. The portions usually affected are the trunk, especially that portion over the sternum, the back, the nucha, and the face. Itching is present in the majority of cases and the growths are sensitive on pressure. Pain is also present to a very marked degree, in some cases. The disease develops from a few nodules which coalesce. Generally, keloid is single, although it may be multiple (See Plate XXXIII).

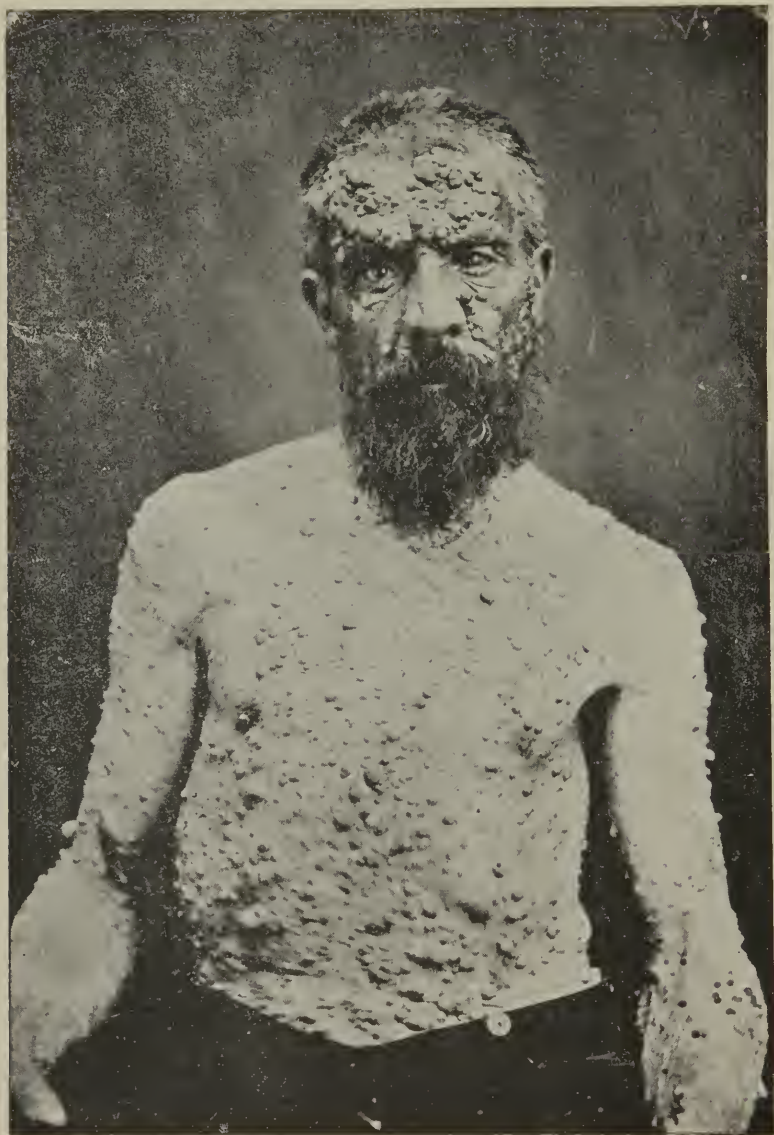
The true cause of keloid is unknown. False keloid is observed after incisions, the application of leeches, vesicants, etc., and after having the ears pierced. The true, or "idiopathic" keloid, appears without any assignable cause. It is seen most often in females and negroes, and during adult life. It is a comparatively rare condition, and very few undoubted cases have been reported.

The structure of keloid is a "new formation of the dermatic framework." In true keloid we find bundles of connective tissue fibres, parallel to each other, and the papillæ of the cutis intact. In hypertrophic scar, no papillæ exist, and the connective tissue, while abundant, is loose and irregularly distributed. In cicatricial, or false keloid, the bundles of connective tissue are present, but the papillæ are absent.

The treatment of keloid is unsatisfactory, as the disease tends to return after excision or cauterization. Multiple puncture, scarifications, curetting, are all ineffectual. The growth generally lasts throughout the life of the individual. Spontaneous resorption is said to have occurred in a few isolated examples. It has been latterly claimed that electrolysis has a good effect, but it is as yet too early to base any positive statements upon the results obtained. When the pain is excessive, measures should be taken to relieve it. A good application for this purpose is this:

R	Cocaini muriat...	ʒj.
	Lanolin	ʒvi.
	Ung. aquæ rosæ	ʒij.
M.		

When the deformity is great, it is best to excise the mass in the hope that, if a return takes place, it may not be so large or disfiguring as the original mass.



FIBROMA.

FIBROMA.

Syn.—Molluscum Fibrosum, Molluscum Simplex, Molluscum Pendulum.

This connective tissue new growth is of rather infrequent occurrence. It appears as elevated, sessile, or pedunculated tumors, varying in size from a pin-head to enormous masses. All sizes may be found in the same case. Generally, a number exist, although it is found singly. In some cases the tumors seem to cover the entire body (See Plate XXXIV). Fibroma appears soft and elastic to the feel—occasionally dense. The skin covering it is normal in color—sometimes reddish. In the large growths it is thinner than normal. Fibromata occur chiefly upon the trunk, the face, the ears, the genitalia, and the limbs.

The growth of these tumors is very slow, but continuous. Its benign nature precludes subjective symptoms except when the large size produces irritation and pain. Fibroma can be readily recognized and differentiated from molluscum epitheliale, cysticircus cellulosaë, neuroma, or lymphangioma.

Fibroma begins in early life and continues to grow. It is seen most often in stunted individuals, and is said to be inherited. The growth is composed of a dense, white, fibrous mass, enclosed in a capsule, the center softening when the mass is large and producing pain on account of the degenerative process which sets in. Ulceration is apt to take place and may lead to complications not inherent to the disease itself.

The treatment is surgical. The tumors should be removed when this is possible. In cases where they exist in hundreds this is scarcely permissible, and only the largest should be excised. There is no tendency whatever to recur, if the removal has been thoroughly done.

XANTHOMA.

Syn.—Xanthelasma, Vitiligoidea, Fibroma Lipomatodes.

This disease derives its name from the yellow color its appearance presents. It occurs in two forms—*xanthoma planum* and *xanthoma tuberosum*.

Xanthoma planum, or macular xanthoma, occurs in ovalish or crescentic macules, of a straw or sulphur yellow, varying in size from a pin's-head to the thumb-nail. The macules are velvety to the touch, and incline to be symmetrical. In appearance they resemble a piece of chamois skin which has been inserted into the integument until level with its surface. The lesions may be single or they may be multiple. When a number exist they are usually of small size and incline to exist in groups. The macules may be discrete or become confluent. They occur most often upon the eyelids. Other portions of the integument and the mucous membranes and internal organs may be affected. There are no subjective symptoms connected with this form of the trouble.

Xanthoma tuberosum consists of small masses, varying in size from a millet-seed to a cherry, and having a deep yellow color. They are softish, and occur about the trunk and joints. This form is not frequently seen. The lesions occur in numbers and at times invade a considerable proportion of the cutaneous envelope.

When both varieties occur in the same individual, we have the condition known as *xanthoma multiplex*, which is composed of the two former described in varying proportions.

The pathology of this affection is not yet definitely settled. It is, probably, a connective tissue new growth, with fatty de-

generation. Cholesterin crystals are found in abundance. There is also a marked number of new cells.

The treatment is surgical. Removal of the affected portion is indicated, but only in those localities in which an operation will improve the appearance. Electrolysis has been employed, latterly, with good results, notably in the plane variety, and promises to be the method of the future. It should always be tried. A one in ten solution of corrosive sublimate in xanthoma of the eyelids has been lauded lately. Excision of patches of xanthoma planum of the eyelids is not to be recommended on account of the cicatricial contractions which ensue.

PSOROSPERMOSIS.

Syn.—Darier's Disease, Ichthyosis Sebacea Cornea, Follicular Vegetating Psorospermosis.

This is a comparatively rare affection which is claimed to be caused by psorosperms. The process seems to implicate the hair-follicle, the outer portion of which is dilated. It, however, occurs in non-hairy parts, such as the palms and soles. The first indication of the disease is in the form of small brown or yellow crusts, which are elevated and quite adherent. When removed by maceration the lips of the depression are red and everted. On the under surface of the crust a softish prolongation is seen. New lesions are apt to occur as crops of papules. In old cases which have existed for some time, the lesions may become confluent. In certain portions of the skin, such as in the groins, armpits, etc., a purulent, most fetid exudation flows out of the depressions.

The only treatment so far offered, which seems at all satisfactory, is the use of the thermo- or electro-cautery to destroy the lesions.



MOLLUSCUM EPITHELIALE.

MOLLUSCUM EPITHELIALE.

Syn.—Molluscum Contagiosum, Molluscum Sebaceum, Epithelioma Molluscum, Acne Varioliformis.

This affection is unusual, and consists of roundish, elevations, wart-like in appearance, and having a waxy, whitish, or pinkish color. The papules are flattened, and show a greater or less depression in the center (See Plate XXXV). A blackish point is occasionally observed in this central depression. The lesions vary in size from a pin-head to a split pea. They occur singly or in numbers. They are firm and easily movable. There are no subjective symptoms beyond a very slight itching at times.

The face and genitalia are most often the seat of these growths. The limbs are also involved, at times. Children are most often the subjects of this disease. It is said that the cause is to be looked for in some local irritation, and there are those who contend that this affection is contagious. This latter point is still *sub judice*, although clinical experience points that way.

As to its pathology, we are reasonably certain that the process occurs in the sebaceous glands, and, when the contents of one of the papules is examined, it is found to abound in the so-called molluscos bodies. The theory is that the disease is primarily an affection of the rete mucosum, and the prickly cells are transformed into these molluscos bodies.

Molluscum epitheliale is not difficult to recognize. It is to be differentiated from sebaceous cyst, molluscum fibrosum and verruca.

The treatment is entirely local. Small lesions may be treated by stimulating applications, such as those containing white precipitate, etc. Enucleation of the sac and its contents is the best

method. Electrolysis is also excellent. A method sometimes practiced is to split open the lesion and introduce a small amount of some caustic, but it is painful and not more efficient than other means.

The disease is easily amenable to proper surgical interference. If left alone, it tends to spontaneous recovery, after having existed for a variable length of time.

RHINOSCLEROMA.

This rare disease is characterized by the presence of an irregular elevated patch, composed of tubercles, of the color of the skin or reddish-brown. The mass is well defined and occurs about the nose, its alæ and the upper lip. It is hard to the feel, although somewhat elastic. It is slow in progress, gradually encroaching on the nasal mucous membrane and extending to the pharynx. There are no subjective symptoms connected with it except pain on pressure. As the growth advances in the nose and encroaches on the pharynx it produces obstruction to the respiration and it may be positively dangerous to life when it attacks the larynx. It is seen in children and adults. It consists of a cellular growth, and late observations tend to show that it is due to encapsulated micro-organisms. The former treatment by cauterization, which acted but temporarily, has been in great part supplanted by injections of corrosive sublimate or salicylic acid solutions, which are followed by apparent successes.

LUPUS ERYTHEMATOSUS.

Syn.—Lupus Erythematodes, Vespertilio, Batwing Disease, Seborrhea Congestiva, Lupus Superficialis, Lupus Sebaceus.

This cellular new growth is not as frequently seen in this country as in Europe. It begins as one or more reddish-brown patches, which increase in size indefinitely. The patches are about the size of the small finger-nail and attract but little attention at their inception. As they enlarge they apparently approach each other. When they have approached to a sufficient extent they coalesce. At the margin grayish or yellowish scales show themselves. When the disease is developed, it presents itself as one or more sharply defined patches of various sizes, of a violaceous or reddish color, covered with adherent scales which may be scanty or appear like a mass of sebaceous matter. The follicles of the sebaceous glands are large and open. The patches are always dry. The localities usually affected are the cheeks and bridge of the nose. These coalesce and form a butterfly-like patch (See Plate XXXVI). The vermilion of the lips, the scalp, the ears, the back and the hands and feet may also be involved. Some burning and itching are sometimes present. The disease is essentially a chronic one and is very rebellious to treatment. An apparent recovery is simply a short respite and new crops of lesions soon make their appearance. Stimulating and caustic applications are the best, the curette and galvano-cautery rendering good service. Multiple scarifications also act favorably. Some cases recover spontaneously, but relapses are very apt to occur.



LUPUS ERYTHEMATOSUS.



LUPUS.

LUPUS VULGARIS.

Syn.—Nolime Tangere, Lupus Exedens, Lupus Vorax.

This affection, while common in Europe, is exceedingly uncommon in this country. It is extremely chronic, slow in its evolution and destructive in its process. It begins as softish nodules, of the size of millet-seed, located in the corium, and appearing to view as dark red macules upon the skin. Patches form in which papules or softish tubercles show themselves. These patches have well-defined, more or less elevated edges (See Plate XXXVII). Involution may take place; but, as a rule, ulcers form which have a dirty floor, an abundant secretion of pus, and rather soft edges. This ulceration is markedly destructive in some cases, and may produce extensive ravages, attacking the underlying tissues, causing necrosis of the bone as well as caries, complete destruction of skin and muscles; and organs, such as the eyes, succumb to the destructive action of the process. Cicatrization takes place as the process advances, so that it is not unusual to observe a lesion with a scar in the centre and nodules and ulceration at the



Fig. 26.—Author's Scarificator.

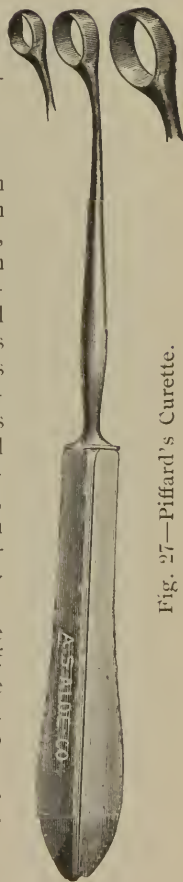


Fig. 27—Piffard's Curette.

periphery. The scars are rather thick, with centrifugal bands, giving a stellate appearance. A scar may be quite large and thin, with sharply defined blood-vessels running over its surface (See Plate XXXVIII). Variations in the process are in the appearance only which is presented. As it may consist only of tubercles or papules (*lupus tuberculosus*); atrophy and desquamation following involution (*lupus exfoliatus*); ulceration (*lupus exedens*); a vegetating process (*lupus vegetans* or *hypertrophicus*); or the occurrence of horny or warty growths (*lupus verrucosus*).

The regions most frequently attacked are the face, especially about the nose and upper lip, the ears, the trunk, the genitalia, and the extremities. The mucous membranes also become the seat of the disease by extension of the process, and the larynx is also attacked. Pain, more or less marked, is an invariable accompaniment.

In the earlier part of the process are found nest-like masses of large nucleated cells which disappear to give way to the general cell infiltration. Tubercle bacilli are also found, abundantly in recent active lesions, usually within the cells.

The diagnosis is to be made from epithelioma, syphilis, psoriasis, lupus erythematosus, and acne rosacea.

The treatment is a difficult matter. Internally, only such remedies should be administered as are demanded by the general condition of the patient. Locally, the most modern treatment is based upon the action of parasitocides. Good results are reported from the use of ointments or solutions of corrosive sublimate, one or two grains to the ounce, applied continuously to the patches, or the same agent in tincture of benzoin, freely painted on the patches, is said to act well. Sulphurous acid, pyrogallol (ten per cent. ointment) and iodoform have been recommended. A very good method is the free application of chromic acid, followed by an ointment of this composition:

℞	Aristol	5j.
	Ung. aquæ rosæ	5j.
M.	Coque et fiat unguentum.	

Multiple scarifications or curetting with a sharp spoon, followed by some of the above applications, is well spoken of by some. Cauterization with the Paquelin knife, galvano-cautery, or chemical caustics has its adherents. Electrolysis has also been advised. The remedies proposed and lauded for this disease are very numerous, and more or less efficient, and care should be observed in formulating a prognosis.



LUPUS SCAR.

SCROFULODERMA.

The scrofulodermata are, as a rule, chronic, indolent, hyperemic processes which induce changes in the skin and subcuta-



Fig. 28.—Scrofuloderma. Scars following Ulceration.

neous tissues. There is a tendency to break down, and to the formation of ulcers. The contiguous ganglia become infiltrated,

hard, and are also inclined to undergo degenerative changes. The nodules which are formed rapidly break down, and the resulting lesions have a purplish appearance, uneven floors, pale granulations and thin pus. The cicatrices are irregular, corded and disfiguring (See Plate XXXIX). The chief varieties of scrofulodermata are the papular and the pustular (small and large). The disease occurs, as a rule, in early childhood, and before puberty, although it is also seen in early adult life. A constant accompaniment is the peculiar lymphatic engorgement and matting together of the ganglia which has so long been characterized under the name of "strumous" glands. The peculiar appearance of patients so affected will readily enable a diagnosis to be made. The destructive character of the process, and the peculiarly offensive nature of the discharges, as well as the slowness with which the healing process sets in, are characteristic of the disease. Very frequently large areas are involved, and, in the course of time, spontaneous healing will take place. The treatment should be general, directed to the struma; and, locally, antiseptic and stimulating applications. Among the former the syrup of the iodide of iron in comparatively large doses combined with cod-liver oil is useful. The best remedy for the purpose, however, is the elixir of the iodo-bromide of calcium compound in marked doses. This not only exerts a general influence on the constitution, but it also causes a reparative change in the glands and improves the quality of the integumentary tissues. Locally, a good ointment to apply is one composed as follows:

R \mathfrak{x}	Aristol.....	5j.
	Tinct. iodini co.....	5j.
	Ung. aquæ rosæ.....	5ij.
M.	Sig. Apply twice daily.	

Iodoform is also of utility, but its disagreeable odor is somewhat of a drawback to its use.



SCROFULODERMA.



TUBERCULOSIS CUTIS.

TUBERCULOSIS CUTIS.

Primary tuberculosis of the skin is a rare affection. No matter where it occurs it is always the result of infection. As a rule it is observed in those suffering from tuberculosis of the lungs and intestines and, on this account, it is most often seen at the orifices of mucous outlets. A nodule appears which breaks down, resulting in an unhealthy sore or ulcer, whose floor is studded with small tubercles (See Plate XL). The adjacent skin or mucous membrane is always infiltrated and the whole presents an unhealthy appearance. Pain is always present. In those cases due to direct inoculation the process occurs upon that portion of the integument which came in contact with the infecting tuberculosis material. Microscopic examination will always reveal the tubercle bacilli.

The treatment must generally be directed to the general tuberculosis which is present, as a rule, in those affected with tuberculosis of the skin. Locally, one of the best agents to use is iodoform, but to obtain results from it, it is best to modify the soil by strong caustics which do not coagulate albumen such as pyrozone solution, 25 per cent. This prepares the lesions for the action of the remedies which are to follow.

The prognosis is never good in this class of cases, as the generalized tuberculosis generally ends fatally.

VERRUCA NECROGENICA, or DISSECTION WART, is a form of local tuberculosis which is quite common in those who are in the habit of handling cadavers. For this reason demonstrators of anatomy, medical students, those who perform post-mortems, butchers, etc., are most often affected. The necrogenic wart appears at first as a persistent reddish, flat elevation on the dorsum of the hand or in the interdigital fold and it persists in remaining, undergoing a nervous change. Several may coalesce or they

may remain isolated, and vary from the size of a pin's-head to that of the thumb-nail. They sometimes disappear spontaneously, or remain stationary, becoming pigmented. At times they break down and ulcerate. Radical extirpation is the only proper method of treatment to adopt.

MYCETOMA.

Syn.—Madura Foot, Fungus Foot, Podelcoma.

This disease, which is endemic in India, occurs in two forms, black and pink. The latter is more common. In either form there are fungoid growths looking like red mould. The beginning is characterized by redness, swelling and some induration. Later on the reddish fungus growths occur, and in the black variety there are then observed black granular particles resembling gunpowder, which give way later on, to black or dark brown masses.

It is the foot which is generally attacked, although the hands, scrotum, or rarely the shoulders, may be the seat of the trouble. When the nodules have existed some time each one has a sinus which penetrates down to the bone, and gives exit to a serous exudation containing pus and round granules.

The process is a disintegration caused by a fungus, the *cheonyphie Carteri*, which is closely allied to that of actinomycosis.

The only efficient treatment consists in the adoption of surgical measures of a radical nature.

LEPRA.

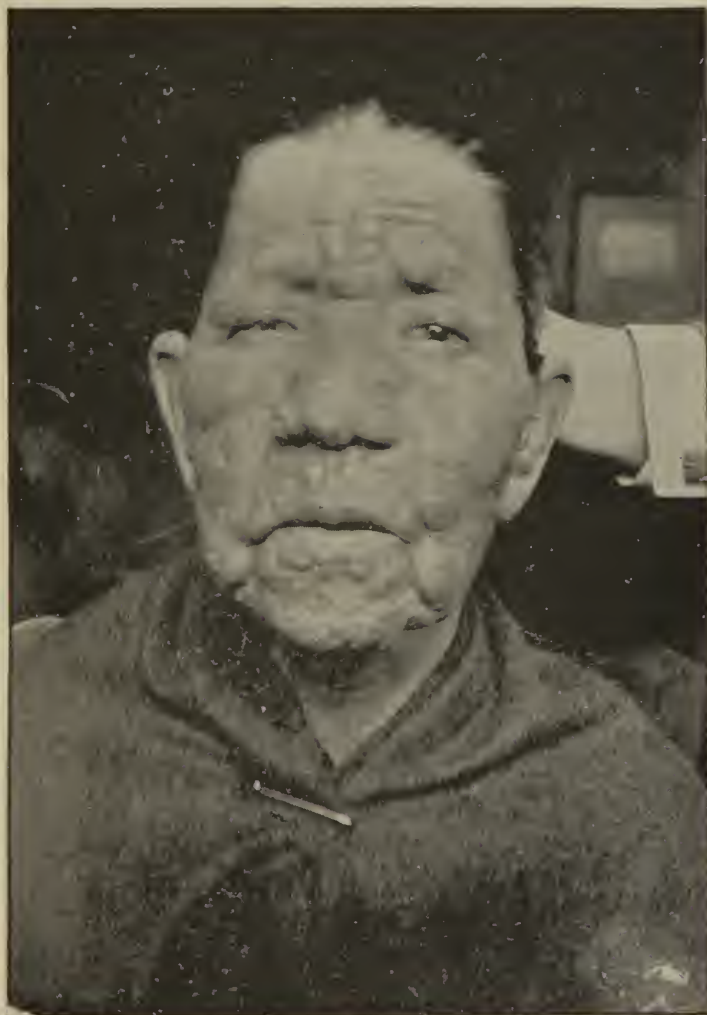
Syn.—Elephantiasis Grecorum, Lepra Arabum, Leontiasis, Satyriasis, Leprosy.

This affection is one which is constitutional and rather infrequent in temperate zones, at the present time. It is slow and



Fig. 29.—Lepra Tuberculosa.

insidious in growth, and rather progressive in character. Premonitory symptoms are observed in the majority of cases, these



LEPRA TUBERCULOSA.

consisting of malaise, chills, fever, languor, loss of appetite, etc. Nearly every organ of the body may become affected. In general, three varieties of the disease are recognized, viz.: tubercular, macular and anesthetic.

Lepra tuberculosa, or tubercular leprosy, begins as macules which are of a reddish or brownish color, round, oval or irregular in outline and occurring chiefly about the face, trunk and extremities. There may be some scales, or the skin may appear shining. In a variable length of time tubercles arise. These consist of irregular nodules, softish to the feel and rather firm, of a reddish, yellow or brown color. The face and hands are most frequently affected. The brows, nose, lips, chin and ears become thickened and nodulated, giving a peculiar leonine appearance to the features (*leontiasis*) (See Plate XLI). The larynx and soft palate sometimes become involved. The tubercles may be reabsorbed, but they generally ulcerate and, towards the last, mutilation, chiefly of the extremities, is a result of this process (*lepra mutilans*). The course of the disease is extremely slow.

Lepra maculosa, or macular leprosy, has the appearance of the tubercular at its inception. Sometimes, the macules are white, with enlarged capillaries at the border. At first there is hyperesthesia and, later on, anesthesia of the affected portions supervenes. Occasionally, the macules bear a close resemblance to vitiligo. The hair growing on a patch of macular leprosy are apt to become thinned and almost invariably turn white.

Lepra anæsthetica, or anæsthetic leprosy, first manifests itself by the appearance of bullæ. Scars generally follow, and these are white and shiny, somewhat resembling plates of mica. The affected areas are anæsthetic, other portions of the integument sharing in this want of sensibility. There is a symmetry in the distribution of the lesions. The nerves, which are subcutaneous, are felt to be indurated, and, like cords, fusiform nodes being found in some. The skin is dry and harsh, the muscles atrophy and the hair falls out. The extremities ulcerate and *lepra mutilans* generally supervenes.

Any two or all of the above varieties may be present in the same individual. In fact, it is seldom that a pure, unmixed case of any variety is met with. A mixture of two forms is generally seen.

The causes of leprosy have never been definitely ascertained. It has no connection whatever with syphilis. As to its being

contagious, there is very strong doubt. Its infectious character has not been definitely ascertained either, experimental inoculations having produced the disease apparently, but subsequent investigation showing that the cases were probably leprous before the inoculations were practiced.

The process which takes place in leprosy is a small, round cell infiltration which depends for its origin upon the bacillus lepræ, whose principal habitat is along the walls of blood-vessels, lymphatic vessels, it being also found in all the lesions.

It may occur at any age, children being the subject of the disease as well as adults and the old.

The treatment of leprosy is ineffectual unless it be in its earliest stages. Hygienic measures. baths plain or with sulphur, or iodine and the use of oil of cashew nut, Gurjun balsam and chaulmoogra oil constitute the principal therapeutics. Chaulmoogra oil has benefitted some cases to a remarkable degree and has proven a complete failure in others. Lately ichthyol, internally and externally, has been claimed to effect a cure in the earlier stages, but there is not enough evidence yet upon which to base a decision. There is no doubt, however, that if the patient can bear large doses of this remedy improvement takes place with rapidity.

The cure of leprosy has not yet been discovered and still remains a desideratum.

PELLAGRA.

Syn.—Lombardian Leprosy, Mal Rosse.

This is essentially a trophoneurotic disease, observed chiefly in Italy. It begins as a chronic erythematous process, invading principally those portions of the skin which are exposed. After a time desquamation takes place, and this leaves a red, shining surface. In those localities in which the desquamation takes place the skin becomes thick, dry and yellowish or brownish in color. Relapses occur every year, and the duration of the disease is about five years. After this length of time a lethal conclusion terminates the case. Marked nervous symptoms occur during its course and paresis is no uncommon complication. Insanity sometimes occurs, and mental hebetude and dullness always accompanies the process.

The disease occurs in the poor and debilitated who live in unsanitary surroundings. Treatment, to be of any value, must be begun early in the disease and is chiefly symptomatic. It is claimed that Fowler's solution, in one or two drop doses, thrice daily is useful.

CARCINOMA CUTIS.

Under the general term of carcinoma of the skin is included three principal varieties of malignant tumors, the epithelial, the fibrous, and the melanotic sarcomata. The skin may be primarily involved by the process or it may become affected after other organs or tissues have been attacked. In all the forms given above there is more or less of an epithelial involvement.

EPITHELIOMA.

Syn.—Epithelial Cancer, Cancroid.

This is by far the most common malignant neoplasm of the skin. Three varieties are described—the superficial, the deep and the papillary.

Superficial Epithelioma.—This form begins as small papules or flat infiltrations, reddish, yellowish or grey in color. The growth has a tendency to arise in existing lesions of the skin, such as excoriations, fissures, etc., or it may take its origin from a wart, mole, nevus or from the orifices of sebaceous glands. The shape may be circular, oval, linear or irregular. It is only observed in those at or past middle life (See Plate XLII). There is a tendency to spread and the formation of an ulcer—*rodent ulcer*—which invades large areas, having an irregular, granulating floor, perpendicular infiltrated edges and secreting a viscid serum. The head and face are most frequently attacked by this variety. The course is slow or rapid; the termination may be a spontaneous healing, after a number of years, or a rapidly destructive process. As a rule, however, rodent ulcer is slow in its spread, whereas, superficial epithelioma is rather rapid and has a greater tendency to the destruction of tissues.



EPITHELIOMA.

Deep Epithelioma.—This variety known also as *tubercular epithelioma* originates in the same manner as the superficial or from nodules situated deeply in the skin or subcutaneously. A tumor forms, sometimes surrounded by "satellites," or a thick "button" arises, which in the course of time degenerates into an ulcer such as has already been described. The process differs in this, however, that it has a tendency to extend down into the tissues involving muscles, fasciæ, bones, etc. It is eminently destructive in character and may, in a comparatively short time, cause death from exhaustion, hemorrhage, etc.

Papillary Epithelioma.—This variety may be described, in a few words, as a malignant papilloma. A warty growth is first observed, which may grow to a considerable size. The surface is dry or secretes an offensive sanguineous fluid. Fissures form, degeneration occurs and ulcers arise such as those described above.

About three-fourths of all the cancers of the skin are observed upon the face and head. Any of the varieties first described may occur in this locality. The genitals, back of the hand and foot, are also occasionally involved. Any portion of the integument may be the seat of this affection.

In *Page's Disease of the Nipple* we have a form which is peculiar, from the fact that at its inception it simulates eczema very closely. In a short time, however, its malignant character declares itself. It is a question at issue as to whether this trouble is a form of epithelioma or of psorospermiosis. At all events, it is essentially destructive in action and malignant in character.

Epithelioma is to be distinguished from lupus vulgaris, syphilis and sarcoma.

In all forms of epithelioma there is marked infiltration of the skin and a decided induration of the edges, the borders may be everted and are frequently undermined. A constant symptom is a sharp, shooting, lancinating pain, which seems to start from the centre of the lesion and radiate therefrom.

The treatment is entirely local, no internal remedies being of any avail, except in so far as general measures may be indicated by an enfeebled state of the patient. Excision, scraping, or cauterization comprise the usual methods of treatment of epithelioma. Of the first two methods it is unnecessary to speak here, they being purely surgical. Among the caustics employed are Vienna paste, caustic potassa and chloride of zinc. Pyrogallol and concentrated lactic acid are said to destroy the cancerous tissue without attacking the normal structures. The former

is used in the strength of ten per cent. and is painless. The latter is mixed with some inert powder so as to form a paste and is exquisitely painful. The method of applying these agents is spread upon cloths. Cosmes' Paste, Bougard's Paste and Marsden's Paste are also employed. The thermo-cautery and galvano-cautery are excellent means when they can be employed. Whatever method is adopted should be thorough. It is absolutely necessary to remove the entire malignant mass, so as to obviate any possibility of a recurrence. When relief is sought, the process has generally advanced so far that a return is almost always certain. In very few cases, in which a few nodules exist and are small and isolated, thorough removal ensures a "cure." A very good method, and one which is nearly always efficient, consists in thoroughly cleaning the ulcerated surface, and then thoroughly applying chromic acid. This is to be followed by pyrogallol ointment in the strength of two parts in one hundred of cold cream. If this ointment is too strong euophen ointment, one drachm to the ounce will be proper. The acid should be applied once or twice a week as indicated.

LENTICULAR CANCER, scirrhus, hard or fibrous cancer rarely occurs primarily in the skin. It is almost always secondary to some cancerous involvement of other parts. It occurs as small, firm nodules in the substance of the skin or in the subcutaneous connective tissue. The skin is generally reddened. The tumors sometimes break down, forming ulcers and subsequently cicatrices. Cancer *en cuirasse* is that form in which the integument of a large part or of all of the chest is infiltrated by the cancerous mass. Returns generally occur after extirpation.

TUBEROUS CARCINOMA occurs on the chest, hands, arms and face in the form of multiple nodules, which are rather large and have a tendency to break down and form deep ulcers, accompanied by more or less pain.

MELANOTIC CARCINOMA, or *pigmented carcinoma*, is that form in which a marked deposit of pigment occurs. It generally takes its origin from pigmentary nevi or moles. It is very markedly malignant. It is a tendency to manifest itself in different black or dark tumors, and does not exhibit a general involvement of the integument.

SARCOMA CUTIS.

Sarcoma of the skin is malignant to quite a marked degree. It shows itself as a primary or secondary growth, occurring as a single or as multiple tumors, varying in size, from a pea to a goose's egg. It may show itself upon any portion of the integument and may occur at almost any age. It has been observed at birth. At first the tumors are isolated, the intervening integument being apparently normal. Later on, it becomes red, swollen and infiltrated. A peculiarity of sarcoma is that it does not ulcerate. The treatment is unsatisfactory and death is the inevitable result, in all cases. The diagnosis is determined definitely by microscopic examination.

MELANOTIC SARCOMA, or *melano-sarcoma* has the general features of sarcomata. It is pigmented, the color presented varying from a grey to black. It is extremely malignant in character and quick in its evolution. It is not unusual for the entire integument to share in the pigmentation, and a case is on record in which all the secretions were black. All treatment is unavailing and a rapid termination in death is to be expected.

MYCOSIS FUNGOIDES, or *granuloma fungoides*, is a neoplastic disease, probably caused by streptococci or diplococci, and characterized by button-like tumors occurring in various portions of the integument, notably the face. After a time, they become firm, sausage-shaped, lobulated, of a peculiar red color, producing a sort of leonine countenance when on the face. On the extremities they are very aptly said to resemble tomatoes. General symptoms set in and all the treatment consists in securing the comfort of the patients, who do not survive longer than two to four years on an average. The disease occurs in patients twenty to forty years of age, and has been known to persist for thirty years.

NEVUS VASCULOSUS.

Syn.—Nevus Sanguineus, Nevus Vascularis.

This affection is frequently seen and easily recognized. It is congenital, occurring either in the skin or subcutaneously, and the formation is a new growth composed of blood-vessels. Nevi of this kind are roundish or irregular in shape, vary in size and are bright red, violaceous, or bluish in color. The head and face are most frequently affected. Some grow larger, others become smaller; but the majority remain stationary. Nevus vasculosus is very vascular, easily compressible, the skin underlying it being normal. Generally, it is single, but it may be multiple. There are no subjective symptoms connected with it.

There are two divisions of nevus vasculosus—nevus tuberosus and nevus simplex.

Nevus tuberosus or *angioma cavernosum* is tumor-like, prominent and erectile. It is very vascular, and, at times, pulsating. It is occasionally seen on the scalp.

Nevus simplex, or *angioma simplex*, consists of non-elevated macule-like patches, which are more or less smooth. It is occasionally described as *nevus flammeus*, or "port wine mark."

Nevus pigmentosus may be verrucous or pigmented, but these are accidental modifications, which merely modify the appearance.

The growth consists of dilated or hypertrophied blood-vessels and capillaries, the former predominating in the cavernous and the latter in the simple variety. The arrangement of these vessels is quite complex. The diagnosis is very easily made.

The treatment of this deformity depends, in a great measure, upon the condition present, the parts implicated, and the means at command. The simplest method is compression. It is long and tedious and unsatisfactory. Vaccination has been tried. The ligature is good in small erectile nevi. When the lesion is small caustics may be used or active cauterizing agents. Bichloride of mercury in collodion or traumaticin (gr. viii to 5i), or tartar emetic in the same strength are good applications. Nitric acid, solution of carbolic acid (fifty per cent.) and chromic acid of thirty per cent. strength have been employed successfully. Ethylate of sodium is efficient, but very painful.

The injection of a solution of the sesqui-chloride of iron is advocated, this substance coagulating the blood. In the smooth variety, linear scarifications, made close to each other and crossed, or punctate scarifications, dipping the needles in some caustic or coagulating fluid, have been successful. The actual cautery, the thermo-cautery, and the galvano-cautery are still employed by some. The simplest method, however, which is easy of application and effective in its action, is electrolysis. The positive pole should be large, the needle being attached to the negative. The needle is plunged into the nevus perpendicularly and the circuit closed. If done carefully, there will be no slough formed. The needle should be introduced at points close to each other. The strength of the current employed should vary from four to six milliamperes.

The prognosis should always be guarded. Whilst some of these nevi readily yield, others seem to recur again and again with a persistency which is discouraging.

TELANGIECTASIS.

In this we have one or more small bright red points or lines which may occur upon any portion of the integument. Telangiectases are acquired, and are composed of enlarged capillaries. They occur most frequently on the face and hands. When occurring as lines they are generally seen upon the malar eminences, the nose, and about the alæ nasi, constituting the condition known as *rosacea*. Telangiectasis may occur at any age, without any known cause. There are no subjective symptoms connected with it. It is easily recognized. The electrolytic needle is very efficient in causing a rapid and permanent disappearance of this deformity.

ANGIOMA PIGMENTOSUM ET ATROPHICUM, *xeroderma pigmentosum*, or *melanosis lenticularis progressiva* is a rare affection characterized at first by a hyperemic condition and numerous split-pea sized telangiectases, together with disseminated, brownish macules. Among the complications attending it are ectropion, ulcerative keratitis, and more or less malignant neoplasms. It generally appears before the third year and may last twenty-five years. It has never been observed in natives of this country.

ADENOMA SEBACEUM.

This is a rather unusual affection which occupies a middle ground. It is congenital but it increases with age or acquires a sudden development at puberty. It consists essentially of red rounded papules, varying in size from a millet-seed to a split-pea, and distributed about the naso-labial fold, on the nose, cheeks and at the root of the nose. In fact, its distribution is that of *acne rosacea*, for which it might be mistaken. There is one peculiarity which is sufficient to distinguish it from all other similar troubles. Each lesion has a small telangiectasis in connection with it.

It occurs, so far as has been observed, in individuals of imperfect mental development, in epileptics and in insane individuals.

The best treatment is extirpation by means of electrolysis, employed in the same manner as for moles or telangiectases.

LYMPHANGIOMA CUTIS.

Syn.—Lymphangioma Tuberosum Multiplex.

This exceedingly rare affection is characterized by transparent, numerous, discrete tubercles which elicit pain upon pressure, and sink below the level of the skin. The disease occurs about the trunk and extremities. The color is a dark red. It is of slow growth and benign. The tubercles, which are illy-defined, consist of a mass of enlarged lymphatic vessels and enlarged lymph spaces.

Surgical measures are probably the only efficient means to employ in this trouble, which is rather in the nature of a deformity.

NEUROMA CUTIS.

This trouble is also exceedingly rare. It simulates fibroma, to a great extent, in appearance. Paroxysmal pains manifest themselves. The growths consist of connective tissue and non-medullated nerve fibres. Pressure produces intense pain. The extremities of amputated stumps are most liable to this trouble, as also scars in other parts of the body.

Excision of the neuroma produces relief of a permanent character.

MYOMA CUTIS.

Syn.—Dermatomyoma, Liomyoma Cutis.

This is a tumor of the skin composed of non-striated muscular fibres. Rose-colored macules and pea-sized firm tumors are found. No subjective symptoms are present. Another form is composed of single tumors which are sessile or pedunculated and attain the size of a hen's egg. They are painless and usually vascular. The disease is rare and not malignant.

When there is a preponderance of connective tissue it constitutes a *fibro-myoma* and when blood-vessels are present to a large extent we have the *myoma telangiectodes*.

CLASS VIII.—NEUROSES.

These diseases are purely functional in character and are merely changes in the normal sensibility. The symptoms are purely subjective, no structural lesions of the skin being present, although changes occur in the nerve-trunks and branches in some cases. Secondary lesions due to scratching are found in some cases.

HYPERESTHESIA.

This is, in general, a symptomatic condition of the skin wherein its sensibility is exalted. It is dependent upon some functional nervous disease or upon some lesion of a nerve trunk. It may be either unilateral or symmetrical and involve small or large areas. Hysteria is a common cause. Its severity, duration, etc., depend upon the exciting cause. The causative disturbance must be treated in order to relieve the condition, and locally, annodyne sprays may occasionally afford temporary relief.

DERMATALGIA.

Syn.—Neuralgia of the Skin, Rheumatism of the Skin.

This is also a purely functional affection, idiopathic and symptomatic in character, the symptoms being subjective. It is characterized by intense pain, located in the skin, and which may be local or general. The pain is spontaneous and may be either constant or intermittent. The idiopathic form is rare. Rheumatism or gout is a very common cause of the symptomatic variety. The general treatment should be directed to the cause.

Locally, the galvanic current, blisters, applications containing the tincture of aconite root, or of belladonna are beneficial; and, if the whole surface be involved, vapor baths. At times, very hot or very cold applications bring relief. In some cases all applications, no matter what their nature, aggravate the trouble. In these a hot air bath is often of benefit.

PRURITUS.

Syn.—Itching.

This functional affection is characterized by one symptom—itching—which may vary in intensity and character. It may be general or local. Among the varieties of the former we have *pruritus senilis*, incident to middle or old age; *pruritus hiemalis*, or *winter itch*, due to sudden falling of the temperature; and the itching depending upon gastro-intestinal and allied conditions. The local forms are *pruritus vulvæ*, *pruritus scroti*, *pruritus ani*, etc. All forms are at times attended by an intolerable itching, and serve to make the subjects of this disorder thoroughly miserable. If the temperature of the affected part be suddenly raised or lowered an attack of itching supervenes. If the patient be in company the nervous excitement will cause an intolerable desire to scratch which becomes a torture if it cannot be indulged in.

Uterine disorders, organic disease of the uterus and ovaries, renal and hepatic diseases, genito-urinary diseases, and certain drugs are causes of this distressing affection. Diabetes is a common cause of *pruritus vulvæ* and *scroti*.

It is easy to recognize the trouble if a careful examination be made to exclude parasites and other diseases attended by pruritus. The only objective lesions ever seen in this affection are the secondary ones caused by scratching—excoriations, torn follicles, blood-crusts, papules, pustules, hyperemia, thickened skin, pigmentation, etc.

The treatment of this trouble depends for its success, in a great measure, upon the degree of relief which is afforded to the condition producing it, the local measures which are adopted being merely palliative. Externally, water, hot or cold, or

alternately hot and cold, aids occasionally. Alkaline baths, sulphur baths, and vapor baths prove of service at times.

In the local forms of the disease lotions or ointments do some good. The best anti-pruritic is probably carbolic acid in the strength of a two to five per cent. aqueous solution. Thymol, menthol and alcohol have proven useful. The essence of peppermint water gives good results occasionally, as also diluted nitric acid. Acetate of lead, morphine, chloral hydrate, camphor, sulphite of soda, dilute hydrocyanic acid, chloroform, dilute water of ammonia alone or in combination, have all been lauded. Infusion of tobacco, decoctions of belladonna and aconite, diluted, are also said to possess efficacy. Tar combined with caustic potassa is frequently of benefit, as in the liquor picis alkalinus.

The sol. antipruritic compound is of value in some cases. It sometimes happens that ointments act better, especially in localized forms of the disease. The majority of the remedies already mentioned may be combined in ointment form. Among the combinations which are effective are the following, applied twice daily:

Rx	Camphoræ,	
	Chloralis hydrat	.....aa, ʒi.
	Ung. aquæ rosæ	.....ʒi.

M.

Rx	Cocaini muriat	.....ʒi.
	Lanolini puriss.....	.....ʒi.

M.

In many of the cases the previous application of pure creasote in full strength, twice a week, will be followed by excellent results.

In pruritus vulvæ it is well to order vaginal injections of chloro-phenique together with the external applications. Hot water alone followed by a bland ointment will secure relief in some cases, as also in some of pruritus ani. Ointments are the best in this latter. If hemorrhoids or fissures exist they should be looked after. Mercurial ointments occasionally afford relief.

As a rule, but temporary relief can be obtained from external applications and this is not constant. The number of remedies which has been suggested for the relief of pruritus is legion, showing how uncertain their action is.

It is absolutely necessary that internal treatment should be conjoined to the local. The condition presented by the patient,

of course, is the best indication of the treatment which is necessary. Arsenauero, however, is always of use on account of its marked tonic effects upon the nervous system. It should be persisted in for a long period of time.

ANESTHESIA.

In this we have diminished or lost sensibility. It may be local or general, diffused or circumscribed. It may exist alone or be accompanied by other disturbances of the cutaneous nerves. It may be either idiopathic or symptomatic, the former being very rare. The latter is due to causes either central or peripheral. Diseases of the nervous system, functional or organic are the most frequent causes. These are generally of such a serious nature as to engage the entire attention and their relief is followed by a disappearance of the cutaneous symptoms.

Analgesia is due to the same causes, the symptom being a loss of sensibility to pain.



FAVUS

CLASS IX.—PARASITES.

This class of diseases is one of the most important from the fact that nearly all the affections included in it are contagious. The lesions produced by the parasites are various in character and more or less intense in their effects upon the skin. Irritation accompanies all, and itching is also a more or less prominent symptom. There are two classes of cutaneous parasites, vegetable and animal. Among the former we have two groups, the epiphytic, or those limited in their action to the surface of the integument; and the hypophytic, or those which penetrate into follicles. The animal parasites, likewise, either roam upon the surface or burrow into the epidermis. Although purely local in character, the parasitic diseases of the skin sometimes produce such extensive local disturbances as to affect the general system. This, however, is evanescent in character, giving way rapidly upon the removal of the cause of the local irritation. The principal vegetable parasites are the *achorion Schœnleinii*, the *trichophyton* and the *microsporon furfur*; the principal animal parasites which infect the skin being the various *pediculi* and the *sarcoptes scabiei*.

FAVUS.

Syn.—*Tinea Favosa*, Honeycomb Ringworm, *Porrigo Favosa*, Crusted Ringworm.

Favus attacks both the hairy and non-hairy portions of the integument. It is found most often upon the scalp of children. In those portions devoid of hair it presents the appearance of sulphur-yellow or dirty-looking scutulæ or "cups" of a peculiar appearance (See Plate XLIII). The "cups" are concavo-con-

vex a half line or more above the general surface and more or less discretely distributed. The convexity of the "cup" is that portion where it is attached to the skin. When occurring in a hairy part, such as the scalp, the "cup" has the same general appearance except that one or more hairs pierce it in the center. These crusts are very friable, break down easily and, when this has occurred, the affected portion is apparently covered by an irregular crust, varying in size and extent. An odor resembling that of decayed straw or of a mouse's nest can be almost invariably detected. The hairs become affected, by the invasion of the parasite, losing their lustre, becoming friable and splitting longitudinally. The nails also become affected by contact and become opaque, yellowish, thickened and friable.



Fig. 30. Achorion Schcenleinii.

More or less itching is present and an amount of pain depending upon the intensity of the inflammation which is present. For, upon removing a "cup" it is found to rest upon a reddened inflamed base, and this is of such a severe nature at times as to lead to suppuration, the formation of abscesses and enlargement of neighboring lymphatic glands. When suppuration takes place on the scalp permanent alopecia is apt to result.

Children, and especially those in poor circumstances, are most liable to this trouble, which is easily acquired from mice, cats and rabbits.

The parasite causing this disease is the achorion Schœnleini which consists of a large proportion of mycelium and some spores (conidia). There is no doubt, however, that several varieties of this parasite exist, as shown by the clinical features presented in different cases. Some act superficially and others invade the follicles, showing that the parasite is both epiphytic and hypophytic. Cultures of different varieties result differently and yet the microscope fails to give definite information in regard to this.

The diagnosis is comparatively easy, especially if microscopic examination be made. If lice or an eczematous process be present, the diagnosis may be obscured, but careful examination of a case will lead to the suspicion that favus is present.

The treatment consists in the application of parasiticides. In the superficial form of favus but little difficulty will be experienced, whereas that form which invades the hair follicles often proves troublesome. To accomplish a cure requires much care and attention, and even then months may elapse before a patient can be safely discharged. As the details of treatment are very similar to those employed in ringworm, the reader is referred to that subject.

Very old cases of favus may have produced such a drain upon the constitution of the patient as to necessitate a course of tonic treatment. In addition, it should never be forgotten that cleanliness is an essential to a successful issue, as well as the removal of the crusts by means of bland oils or poultices carefully applied before any curative measures are attempted.

TINEA TRICOPHYTINA.

Syn.—Ringworm.

This disease, commonly known as ringworm, attacks the hairy and non-hairy portions of the body. Three principal varieties are observed, viz: *tinea corporis*, *tinea capitis* and *tinea barbæ*.

TINEA CORPORIS.

Syn.—*Tinea Circinata*, *Herpes Circinatus*, Ringworm of the Body.

This form of *tinea* is more or less multiform, being macular, vesicular, papular, or squamous, but rarely pustular in form. The outlines of the lesions are more or less distinctly circular. The color is reddish with a tendency to pale at the center and to desquamate at the periphery. Moderate itching accompanies the process, and, in time, distinct annular lesions develop, which gradually enlarge peripherally. The lesions are usually slightly elevated above the general surface. The erythematous form is the one most frequently observed. The vesicular form is occasionally seen, the vesicles soon drying up and forming scales. The papular and pustular, especially, are seldom observed.

Tinea corporis is contagious to quite a marked degree, as are all the forms of ringworm.

Tinea cruris, or *eczema marginatum*, is a variety observed on the inner portions of the thighs and encroaching upon the scrotum. It also occurs in the axilla, where it is known as *tinea axillaris*. Its borders are sharply defined against the normal skin, and more or less exudation accompanies the condition. The

central portions clear up and the periphery is frequently studded with papules. The itching in this form is marked, and the disease obstinate, probably because an eczematous process is an accompaniment. The scrotum sometimes participates in the process, and becomes moist and angry-looking. Care should always be taken to establish a diagnosis.

Tinea unguium or *onychomycosis*, is the term employed to designate this affection when it attacks the nails, which then become opaque, brittle and friable, as well as yellowish in color.

Some of the rarer forms of skin disease produced by a similar, if not identical parasite, are *Tokelau ringworm*, *Burmese ringworm*, *Malabar itch*, etc., the clinical symptoms being exaggerated.

Tokelau ringworm, or *tinea imbricata*, is clinically recognized by the fact that it rather affects the non-hairy parts and consists of a number of concentric rings about one-eighth of an inch apart, which consist of scales, the free edges of which point to the center of the lesion. The whole body may be implicated. When the scales leave there remains a fawn-colored macule.

TINEA CAPITIS.

Syn.—Tinea Tonsurans, Herpes Tonsurans, Porrigo Furfurans, Tinea Tondens, Ringworm of the Scalp.

This constitutes that form in which the scalp is affected. In this there is noted the occurrence of one or more circumscribed patches upon which the hair is dry, brittle, broken off short, and suggestive of partial alopecia (See Plate XLIV). The scalp itself at the seat of the disease presents scaling, or crusting, or a vesicular eruption. There is marked itching present, the tendency being for the process to spread. When an attempt to extract the hairs is made, they are apt to break off. Sometimes, exudation takes place, a more or less marked phlegmonous or suppurative process occurs and the formation of scars follows. The disease in this locality occurs most frequently in children and is highly contagious. It is also most rebellious to treatment, owing to the fact that the process is deep down in the hair follicles.

Tinea kerion, or *kerion Celsi*, is sometimes observed to follow an active inflammation of a circumscribed portion of the scalp affected by ringworm. A tumor, reddish in color, forms, and from numerous distended follicles there exudes a thick, viscid fluid. It has a boggy appearance. It is rather uncommon, and is most often observed in neglected or improperly treated cases. Occasionally, however, artificial kerion is produced for the relief of very obstinate forms of tinea capitis.



TINEA CAPITIS.

TINEA BARBÆ.

Syn.—Tinea Sycosis, Sycosis Parasitica, Mentagra Parasitica, Sycosis Contagiosa, Barber's Itch.

Tinea barbæ is that form of ringworm which affects the beard. At first, small hyperemic, slightly desquamating patches are observed; but, in a short time, larger areas become involved, the skin is congested, papules and tubercles form and eventually the tubercles break down and give exit to a mucoid, puriform fluid, the parts being then extremely painful. The hairs become dry, brittle and break off easily. They fall spontaneously and are easily extracted. Crusting of a portion of the surface is not an unusual occurrence. In cases which have existed for some time subcutaneous abscesses form as also large pustules which are exceedingly painful. The lymphatics enlarge and the face and neck present an ugly, inflamed and lumpy appearance.

The diagnosis of the various forms of ringworm is a comparatively easy matter, providing that the presence of the parasite be suspected. Ringworm of the body may be confounded with some forms of eczema, psoriasis, seborrhea, syphilis, lupus erythematosus, and herpes iris. It is an epiphytic trouble and the fungus may be found on and between the scales of the horny layer of the epidermis. It consists of mycelium and spores, the latter being arranged in chaplets. In the early stage of the disease spores alone may be present. The mycelium is long tenacious and has numerous branches.

Tinea capitis is easily recognized when typical. It might be confounded with alopecia areata, but this is hardly probable; for, in ringworm the apparently bald spot is studded with the stumps of broken off hairs which can be extracted if a little care be taken. Both diseases, however, sometimes coexist, and

ringworm of the scalp is also complicated by eczema in some cases. The fungus here is hypophytic. It penetrates into the mucous layer of the skin, and even the corium. It invades the hair follicles and the hair bulb. In these cases, the bulbs are full of spores, the shaft is split longitudinally, and conidia exist for quite a distance above the level of the scalp. The mycelia are sparsely distributed.

Tinea barbæ can only be confounded with sycosis or eczema of the same region. The fungus produces perifolliculitis invading the follicle and the hair. It is also hypophytic here and the



Fig. 31.—Tricophyton.

process is similar to that occurring upon the scalp. The bulb of the hair, however, is usually much enlarged by the mass of infiltrated spores, and, for this reason, the hair is extracted with more difficulty.

The treatment of these various forms has a three-fold object in view. 1° The prevention of the dissemination of the disease; 2° the limitation of auto-infection; and 3° the destruction of the parasite. The third is always paramount in importance, as it includes the other two.

In *tinea corporis* we have a comparatively simple matter to deal with. The condition is one easily amenable to treatment. The number of remedies which have been used for this purpose

is very large. Thus, after washing with *sapo viridis*, apply ammoniated mercury ointment, one-half to one drachm to the ounce. Nitrate of mercury ointment one to two drachms to the ounce, or yellow sulphate of mercury fifteen to thirty grains to the ounce are also efficacious. A method which is excellent is the application of corrosive sublimate two grains to the ounce of compound tincture of benzoin once daily. Two or three applications will suffice. Among the remedies employed are: sulphurous acid, hyposulphite of soda, tincture of iodine, acetic acid, boracic acid, campho-phenique, Wilkinson's ointment, etc. The choice of a remedy depends very much upon the amount of surface involved, and the ease with which it may be obtained.

The treatment of *tinea capitis* is a more complicated affair. As the parasite penetrates more deeply it is a much more difficult matter to reach it with parasitocides. In the first place, all crusts and scales should be removed. Then epilation may be practiced. This may be done by extracting the hairs by means of epilating forceps, care being taken to go a small distance beyond the diseased area, or a quicker method (and one also much more painful) is to employ Bulkley's adhesive sticks, which are melted and made to adhere to several hairs at a time. These are then torn out.

The hairs having been extracted it becomes necessary to make some application, and such as have already been mentioned under the treatment of *tinea corporis* may be employed.

Another method, practiced by some, is to produce an artificial kerion, by means of croton oil, which brings about supuration in the hair follicles, and thus destroys the parasites. Sticks made of two parts of the oil and one each of cocoa butter and white wax are used for this purpose. A solution of salicylic acid is applied after each treatment and poultices may be needed.

A method lately introduced is that by means of a galvanic current, and known as cataphoresis. The negative pole, saturated in a 1-1000 solution of corrosive sublimate, is applied to the affected part, the positive pole being at some indifferent site. The liquid penetrates the skin and attacks the parasite *in situ*. One of the recent methods devised for the treatment of various tinea of the head is as follows: All crusts are removed, the hair cut as short as possible, and then a pasteboard cylinder which fits the head closely is put on the patient. This cylinder has wires passing through, some inches above the vertex, so as to form a support upon which a small dish containing sulphur is

placed. The sulphur is ignited, a cover which fits tightly is placed on the cylinder. The sulphur soon ceases burning on account of the lack of air, but enough sulphurous anhydride has been formed to destroy a portion of the fungus. This operation is repeated twice daily, and cures are said to be effected in three or four weeks.

A remedy which has been highly extolled in the treatment of *tinea capitis* is chrysarobin, which should be rubbed in once daily. The best formula for this purpose is this:

R	Chrysarobini	5j.
	Lanolini	5j.
M.		

The large number of methods devised for the treatment of this affection shows its obstinacy and the most expert often fail to procure any relief. In such cases the disease finally cures spontaneously, after a number of years, and often without any consequent alopecia.

The treatment of *tinea barbæ* is similar to that of *tinea capitis*. Epilation should be practiced on alternate days. On the other days the beard should be shaved. Parasiticides are to be employed. If pustules or small subcutaneous abscesses form, they should be promptly opened and treated with antiseptics to prevent the re-formation of pus. Like the disease affecting the hairy scalp, this form is frequently intractable and it requires much patience to arrive at a satisfactory result.

Favus and ringworm are diseases, which require much attention not only in treatment, but in prophylaxis. As the diseases are highly contagious, much care should be taken to avoid dissemination of the parasite. When children, the subjects of this disease, attend school or are inmates of asylums or other institutions in which a large number of individuals come in contact with each other, they should be segregated. This is a necessity which has been demonstrated by the rapidity with which an epidemic springs up and the great difficulty of stamping it out. All the clothing, toilet articles, towels, etc., used by one affected with a vegetable parasitic disease should be reserved for him alone and no one else permitted to employ them.

Another precaution to observe is the avoidance of all moisture to the parts affected. It is a noted fact that all these fungi thrive upon moisture, and if this be furnished, results of a satisfactory nature will be considerably retarded, besides giving the fungus a better opportunity for further dissemination.

CHROMOPHYTOSIS.

Syn.—*Tinea Versicolor*, *Chloasma*, *Pityriasis Versicolor*.

This vegetable parasitic disease is eminently epiphytic. It appears as brownish macules, irregular in shape and size and distributed, for the most part, over the chest and back. There is present a furfuraceous desquamation, the itching being slight. Upon rubbing one of these macules it will be observed that the upper layers of the epidermis roll up and fall off. It is generally seen in adults and it occasions but slight discomfort. It spreads with greater or less rapidity and seldom invades the limbs, although the groins and axillæ are often affected. It seems to be most abundant in those localities in which the perspiration is free.

It is due to the microsporon furfur, a low vegetable organism with weak contagious properties. It presents the appearance of slender, short mycelia, which are abundant and cross each other in all directions. In addition there are masses of spores occurring in groups with, here and there, single ones scattered and occurring at the tips of the mycelia.

The diagnosis is sometimes difficult to make from vitiligo, from the objective symptoms solely. It also resembles chloasma, closely, at times. Microscopic examination, however, will clear up any doubts which may exist.

The treatment is simple in principle, although not always successful in practice, as the disease is often most intractable. Moreover, unless the applications be made thoroughly, the fungus will grow anew. On this account the disease must be closely watched during treatment. Among some of the agents which are successful in the treatment of this affection we have mercurials, such as corrosive sublimate lotions two or three grains to

to the ounce, saturated solution of boric acid, sulphurous acid, hyposulphite of soda, the red oxide of mercury in ointment, oleate of mercury diluted, campho-phenique once daily to the dry skin, or the following :

Rx	Acid salicylic	.....	5ss.
	Sulfuris loti	.....	5jss.
	Lanolini,		
	Vaselini	..... aa,	5j.

M. Sig. Apply at night and wash off the next morning.

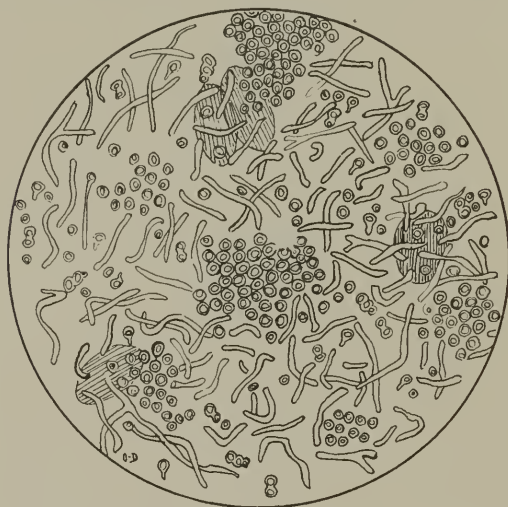


Fig. 32. *Microsporon Furfur*.

Benzine is occasionally of use, although much reliance cannot be placed upon it. Chrysarobin ointment varying inversely in strength to the amount of surface to be covered is excellent.

If the scales be abundant, they are best removed by means of *sapo viridis* or its tincture, before the applications are made.

The greatest care must be taken in making the applications thorough, for this disease is most prone to relapses. For this reason, it is also necessary to prolong a course of treatment even after an apparent cure has declared itself.

ERYTHRASMA.

This is a rather rare disease, which manifests itself in those portions of the integument which are opposed to each other, such as the axilla, the internatal cleft, etc. It shows itself in the form of dark-red or brownish macules. It is slow in spreading, and has a tendency to become chronic. It is caused by the micro-*sporon minutissimum*.

The treatment to be pursued is essentially the same as that employed for chromophytosis.

MYCOSIS VAGINALIS is due to either *leptothrix vaginalis* or *oidium albicans*, and is characterized by pruritus. A weak solution of sulphate of copper cures the disease.

SCABIES.

Syn.—The Itch.

The eruption caused by this parasite is beyond doubt the most serious of all the animal parasitic dermatoses. Whilst limited in its area at its inception, it spreads very rapidly, chiefly through the efforts at scratching by the patient. The typical lesion which is characteristic of the presence of the parasite is a vesicle which is the abiding place of the female, which burrows under the horny layer of the epidermis, whereas the male limits his movements to the surface in search of the female. After fecundation, the female immediately tunnels underneath the upper layer of the skin for the purpose of depositing her ova, which mature as she pursues her way, so that by the time the eggs are laid the first one has already released its tenant. These furrows have the appearance of a small piece of black thread drawn under the skin, the dark appearance being caused by the deposits of excrement made by the female. Such a cuniculus is easily opened, and by the use of a proper magnifying glass the ova may be distinctly made out. The burrowing will easily explain the intense itching of the trouble, as well as account for the fact that the flexures of joints, and those portions of the integument which are thinnest, are chosen for the purpose of laying eggs. Add to this the fact that contagion is the method of acquiring the trouble, no difficulty will be experienced in remembering the fact that the skin between the fingers and the flexures of the wrists is that which is generally affected (See Plate XLV). The extension of the trouble is easy, and secondary lesions soon appear after the establishment of the trouble. The vesicles are torn open, the parasite released, the floor of the vesicle is torn as well as the cuniculus, pustules form, papules develope as a



result of the lesion, crusts form here and there, and we have finally presented the picture of an inflammatory, polymorphous eruption of an exudative nature, in which the attacks of itching are irregular and intense. So far as the distribution of the lesions is concerned, one general rule may be formulated. The older the affection, the greater the dissemination. After it is once well established, the eruption is most marked in those portions which are most accessible to the scratching fingers. One of the most common accessory causes in the perpetuation of the trouble is filth. An unclean body necessitates scratching to loosen the accumulated epidermal scales, and thus indirectly aids in the further dissemination of the parasites. Filthy underwear forms a permanent depot for the *sarcoptes* to lodge in, besides acting as a preventive to the thorough action of any remedial measures which may be undertaken. Fortunately, the better conditions which prevail in this country have done much to lessen the number of cases, which, to the uninitiated, is truly appalling in the large continental cities. Yet during the late civil war in the United States, scabies was one of the curses with which both armies was afflicted. A peculiarity of scabies is that it does not affect the face or head.

The parasite which causes the disease is known as the *sarcoptes scabiei*. It was formerly called the *acarus scabiei*, from the fact that it belongs to the order *acarina*, family *acaridæ*, class *arachnoidæ*. It is a minute roundish animalcule barely visible to the naked eye, being equal in surface to the cross section of a small pin and pale yellowish in color. The female is much larger than the male, varying in length from $\frac{1}{2}$ " to $\frac{1}{3}$ " and in breadth from $\frac{1}{4}$ " to $\frac{1}{8}$ ". The form is somewhat ovalish, the head being closely set to the body and also oval in form (See Plate XLVII). There are no eyes. The thorax is provided with four short, jointed legs, terminating in suckers and bristles. The abdomen is likewise provided with similar legs of equal number. In the female the abdominal legs terminate in bristles, whereas in the male the last pair is also provided with suckers, the other two terminating in bristles. In the male we observe the external genital organ very plainly, whereas in the female there is a cleft visible at the abdominal extremity. When viewed upon its ventral surface there may be distinguished a number of cross striations which are undulating, and here and there small spinous processes from which bristles emerge. The head is provided with strong mandibles, and six hairs project from it. The habitat of the female is in the skin. As soon as it finds itself upon the integument, it begins burrowing to form

a cuniculus wherein to lay its eggs. The male roams about on the surface looking for females to fecundate. The young are very hardy and develop very rapidly, the period of incubation varying from eight to ten days. With a little care the female sarcoptes can be extracted, as well as the young in various stages. The male is more difficult to obtain, yet a little patient research will generally be rewarded by obtaining a specimen.

The treatment of scabies consists essentially in the destruction of the parasite which is the exciting cause of the trouble. A large number of methods have been successfully used to accomplish this purpose, and in each instance the thoroughness of application is the most essential part. From time immemorial the specific for scabies has been sulphur, and it has served a good purpose when properly applied. I do not propose to give all the methods employed, but will merely enumerate a few which are efficient. In Paris, where an enormous number of patients are treated daily at the Hopital St. Louis, the patients are given a hot bath with frictions of black soap (*savon noir*) and well scrubbed. Then Wilkinson's ointment is well rubbed in, and the clothing which has previously been subjected to an intense heat in an oven, is resumed. One such treatment is sufficient. In Vienna the treatment is analogous. It is essential, however, that the ointment be well rubbed in. Another method consists in scrubbing the skin well with soap (*sapo viridis*) and water, and then rubbing in a sulphur ointment containing a drachm of the precipitated sulphur to the ounce of fresh lard. A method which is cleaner, and which I have successfully employed, is this: The patient takes a hot bath with some alkaline soap, in the morning, putting on a complete change of clothes. He then applies in the interval, *i. e.*, before assuming the change of clothing, and after thoroughly drying the skin, the following:

℞ Sodii hyphosulphit.....	℥viij.
Aquæ destillat	℥viij.

M.

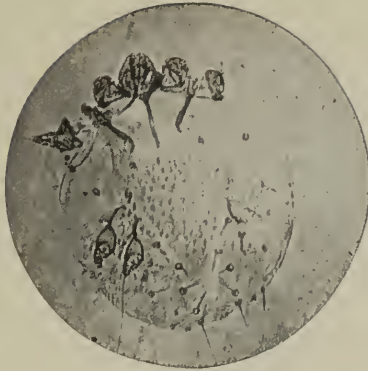
After being applied it is permitted to dry on the skin, then the clothing is put on.

In the evening before retiring the following is applied:

℞ Acid. hydrochlorici dil.....	℥vj.
Aquæ destillat.....	℥iv.

M.

If it be too severe the acid may be further diluted so as not to prove too painful.



Sarcoptes Scabiei.



Pediculus Capitis.

The effect of this treatment is marked, and it possesses several advantages over other methods. It is cleanly, in the first place. It is easy of application, and it ensures a precipitation of sulphur in an exceedingly divided state in every small fissure which may exist, thus making it as thorough as it is possible to do so. The process should be repeated daily for three or four days, not omitting the change of underwear and clothing. The clothes temporarily cast off should be subjected to a dry heat sufficiently intense to kill any lurking parasites, and yet not so high as to scorch the material. A little carefulness exercised in this matter will result in a satisfactory result, and no unnecessary expense will be incurred by the destruction of clothing. The point to be observed, however, is that whatever method be adopted, make the applications thorough, and further eliminate all possible cause of infection.

PEDICULOSIS.

Syn.—Phthiriasis, Lousiness, Pedicularis, Malis Pediculi.

Pediculosis is an affection found chiefly in individuals who are living in circumstances which engender filth, carelessness, and overcrowding. The parasites are prone to roam about, and easily change their host. Unlike the *acarus scabiei*, they are epizootic. They live upon the surface of the integument and deposit their ova upon the hairs or in the clothing. Three principal varieties are recognized, viz: pediculosis capitis, pediculosis corporis, and pediculosis pubis.

PEDICULOSIS CAPITIS.

Pediculosis or phthiriasis capitis is an affection which, whilst not common in this country, is seen sufficiently often to attract more than passing attention. In Europe it is much more frequent in occurrence, and there, as here, it is among the poorer classes, and those who are strangers to cleanliness, that it is more frequently observed. A little care in making an examination will enable a diagnosis to be easily reached by the fact that the parasite is easily seen, as well as its ova. In a mild case of the trouble the patient complains of itching in the scalp, and this sensation is not confined to any one point, but seems to be changing its location continually, occasionally occurring in several points at one and the same time. Scratching of a mild character momentarily relieves the pruritus. The hairy scalp alone is affected, the parasites confining themselves to this area. To find the little pests it is necessary to part the hair, as they limit their roamings to the integumentary surface, as a general thing. Upon the hairs will be found "nits," or ova, tightly glued to the



PORRIGO E PEDICULIS.

shaft, and presenting the appearance of minute white bodies, or apparent nodes. Should the condition have existed some time, the multiplication of the pediculi has been so great, and the consequent irritation so marked, that scratching is more severe, and as a natural consequence, a dermatitis more or less severe in character is set up. Papules, pustules, crusts and excoriations exist in various proportions, accompanied by a glairy exudation, which tends to mat the hair. Fermentative changes set in, and are attended by a disagreeable fetid odor of a more or less sour smell. Add to this the accumulation of extraneous matter, and the condition of extreme filth which is presented can be better imagined than described. As a result of scratching low down on the occiput, we have the pruritus extended some distance down the neck, and the efforts made to relieve this produce excoriations and crusts of a dirty color, the condition being known as *porrigo e pediculis* (See Plate XLVI). The site of predilection of pediculi capitis is the occiput, the vertex, the temples also being favored spots. Whilst more frequently observed in those having long hair, it is also often observed in those who keep their hair trimmed short. It is seen at all ages, and may be easily acquired by those of cleanly habits who may come in contact with the persons, clothing or bedding of patients having pediculosis. Street cars, railway carriages, cabs, and other conveyances are a frequent source of contamination.

The pediculus capitis or head louse is grayish in color, of an elongated ovalish form. The female is somewhat larger than the male, the sizes varying from $\frac{3}{8}$ " to $1\frac{1}{2}$ " in length and about one-half of this in breadth. The head is somewhat acorn-shaped, provided with distinct eyes and five-jointed antennæ (See Plate XLVII). The legs, which are attached to the thorax, are provided with four joints exclusive of the claw, with which each one terminates. The legs and body are provided with hairs, which are quite distinct. Strong mandibles exist, and enable the parasite to traverse through the stratum corneum of the skin down to the rete malpighii from which it can derive its sustenance in the form of blood. The habitat of the pediculus capitis is on the scalp; the female, however, being frequently found upon the hairs where it goes to deposit its ova for incubation. The ovum or "nit" is a whitish, oval or pyriform body about $\frac{1}{4}$ " in length, and is distinctly visible. It is attached to the hair by a peculiar glutinous substance. One or more ova may be attached to the same hair. The incubation period varies from six days to a week, and the females are very prolific, being almost continually occupied in laying eggs. It may be readily

seen how an enormous multiplication of the parasite is possible in a comparatively short space of time.

The treatment of pediculosis capitis must not only be curative, but prophylactic. In order to obtain a permanent release from the pests it is absolutely necessary to remove all causes of possible contagion. In order to insure this, individuals similarly affected should be avoided, and all head coverings subjected to a process which will effectually destroy the parasites and their ova. Combs and hair brushes should likewise be thoroughly cleansed after each time they are employed, and no other individual should be permitted to use them any more than hats, caps, or similar articles of dress. In the case of males affected with pediculi of the head, the treatment is comparatively a simple matter, as the hair may be clipped very close, thus affording an opportunity of making applications more thoroughly. All ointments should be avoided, as they are disagreeable to use, whereas liquid preparations are more agreeable and cleanly. I have found one of the best remedies to employ for this purpose is campho-phenique, which not only kills the parasite and destroys the ova rapidly, but has the further effect of acting as a vulnerary on the secondary lesions which have been caused by scratching. It may be used two or three times daily on the dry scalp. In the case of females with long hair we have a more complicated condition of affairs to deal with. The hairs are frequently full of ova, and these must be eliminated *pari passu* with the destruction of the pediculi. For this purpose a thorough shampoo with *sapo viridis* is unexcelled, as it dissolves the nits and cleanses the hair. When the hair and the scalp have been thoroughly dried the same remedy as mentioned above may be used. A preparation which has met with success in Russia, not only in pediculosis, but scabies as well, is the thorough use of benzine. Its disagreeable odor, however, will always limit its use. The remedies which have been successfully used in pediculosis are numerous, and all have been highly lauded. A solution of bichloride of mercury varying in strength from 1 to 1000 to 1 to 5000 is well spoken of, also an infusion of *staphisagria* thoroughly applied. The use of coal-oil is popular with the lower classes, but is often followed by a marked dermatitis frequently of an eczematous character. Solution of creolin, of the strength of eight per cent. is claimed to be efficient. A six per cent. solution of carbolic acid is an effective lotion in pediculosis, but it generally permits the ova to hatch, and a new crop of parasites to appear. The principal point to observe, no matter what measures be adopted, is that the treatment be thorough,

and this implies not only the application of the remedy to the affected parts so as to reach every point, but also a frequency sufficient to accomplish the purpose completely, and not such as will permit of relapses through the hatching of the undestroyed ova.

PEDICULOSIS CORPORIS.

Pediculosis corporis is an affection which is produced by the pediculus corporis *seu vestimenti*. It is common enough to be seen under circumstances in which masses of individuals congregate, and have no opportunities or inclinations to keep themselves clean. Soldiers who are any length of time in camp, laborers who live in camps, several occupying one tent, the dwellers of tenement houses of the lower class, and similar individuals seem to be infested with the body louse. As a rule, it is adults who are most subject to the trouble, and men more frequently than women. The itching which is present is intolerable, and is most severe about the shoulders and sides of the body, although the limbs and trunk are often the seat of pruritus. The head is never attacked, and this will be immediately explained when we consider that the habitat of the pediculus corporis is the clothing and not the integument. The lesions presented upon the body are almost pathognomic of the trouble, and, when found, should always lead to a careful examination of the clothing worn next to the skin. The objective phenomena which are seen consist of secondary lesions, and these are, for the most part, excoriations of a marked character, four to six inches in length, and several in number parallel to each other. They are the result of scratching, and to be found in those portions most accessible to the hands, viz: the scapular regions, the flanks, the buttocks, the outer surfaces of the thighs, etc. The scratching, at times, is so severe as to produce bleeding and consequent crusts. If the trouble be superficial, ulcers will form. The underwear will stick to the denuded patches, and its removal will lead to fresh bleedings accompanied by pain. When a case has progressed thus far the arms will share in the general involvement, and the spectacle presented by a patient thus affected is that of a most miserable being.

Among the modifications observed in the subjective symptoms occurring in pediculosis corporis is the presence of short and jagged scratch marks, due to digging of the nails into the integument. Another condition is seen which should not be hastily misjudged. This consists of pigmentation of a light or dark brown color, at first disseminated in macules of varying size. In cases of long standing it may become diffuse and involve the entire integument which has been subjected to the depredation of the parasite.

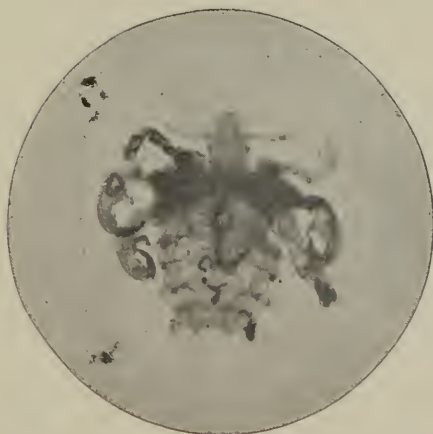
The pediculus corporis is the largest of the pediculi. It sometimes attains comparatively enormous proportions and is quite voracious, abstracting the blood of its host quite freely, and in amounts that are comparatively large. It is stoutly built, the female being considerably larger than the male. It varies in size from $\frac{3}{4}$ " to 2" in length, being about one-third as broad. In color it is a dirty-gray which has a reddish tinge after it has abstracted blood. The female is much broader at the abdomen on account of the ova which it must contain. It may be distinguished from the male by the notch which exists at the distal end of the abdomen (See Plate XLVIII). This parasite is provided with three strong four-jointed legs, having claws at their extremities and provided with hairs. The abdomen has seven well-defined notches on each side. The head is large and somewhat acorn-shaped, the eyes being quite prominent. The antennæ, which are strong, are five-jointed, and very mobile. The mandibles are unusually powerful, and easily cut the integument of the host. As mentioned above, the parasites live in the seams of the clothing and it is here that the female deposits her ova, which hatch in five or six days. It is said that in eighteen days they will reproduce. When the parasite desires food it will roam on the skin, and it is on this account that very few are ever found outside the clothing.

The treatment of this condition is very simple in principle, but it is not such an easy matter to carry out in actual practice. It is to be divided into two parts—the treatment of the patient and that of his clothing. A good bath and destruction of the clothing is certainly not difficult to order, but it cannot be carried out in many instances. What can be done, however, and if it be done thoroughly it will result in success, is to adapt the means to be used to the conditions presented. The treatment of the patient should consist in the application of campho-phenique to the entire affected surface. This remedy kills whatever parasites may be lurking on the skin, and it acts as an antiseptic and vulnerary, promoting a rapid healing of the dermatitis which has been excited by the scratching. Washing thoroughly with a slightly

alkaline soap and then applying a 1 to 1000 solution of bichloride of mercury is also a good plan. No method, however, will be effective unless uninfected clothing be assumed after its use. If, as it often happens, the patient has no change of clothing, the parasites must be picked out of the garments and killed, a matter which is easy, as they are found with but little trouble. To insure the destruction of the ova it is absolutely necessary to subject the clothing to a high degree of heat. It is better after this to soak it in a fairly strong alkaline solution and boil it, and then thoroughly wash it. Such a course will rid the patient of these parasites; but, unless he avoids those persons and localities where body lice flourish, he will acquire them again. They may be picked up occasionally, as in the case of head lice, in public conveyances, sleeping cars, unclean hotels; or, in fact, wherever perfect cleanliness does not reign, and where all sorts and conditions of individuals may congregate, or occupy furniture which will be occupied by others.



Pediculus Corporis.



Pediculus Pubis.

PEDICULOSIS PUBIS.

Pediculosis pubis is an affection much more commonly encountered in males than in females. It manifests itself by an intense itching about the mons veneris, which scratching does not seem to allay by any means. Beginning with fugitive sensations of pruritus, the symptoms after some time become incessant and well nigh intolerable. Should the symptoms be permitted to go on untreated for a protracted length of time the itching ceases entirely or almost so, although the parasite will continue increasing its numbers. It is not entirely limited to the pubic region. It may occur wherever there are coarse or stout hairs and it may affect individuals at all ages, from infancy to old age. It is not infrequently found about the hairs of the legs, if these be at all coarser than the ordinary lanugo hairs. The hair of the chest and of the axillæ also afford a convenient nidus for the parasite. The beard is occasionally seen to harbor it as well as the eyebrows and eyelashes. But here it stops. The scalp is never affected*, as the hair of the head is doubtless too fine to afford the grasp which doubtless the parasite needs. So far as secondary symptoms are concerned we find little if any occurring except in the axillæ or eyelids. In the former excoriations and polymorphous eruptions occur; whereas, in the latter, a condition resembling tinea tarsi is developed as a result of the rubbing occasioned by irritation. Bluish macules are sometimes seen upon the anterior and upper portions of the thighs, due to the bites of the pediculi. These *taches bleuâtres*, as they have been denominated, are pathognomic of pediculi pubis and are supposed to be due to a fluid ejected by the parasites when they prepare to ex-

* In Nov., 1892, Rona presented a known exception in the case of a boy of 14 who presented pediculi and their ova on the head, neck, eyebrows and eyelashes. The migrations of all the forms of pediculi have been mentioned by several authors, but they are the exception rather than the rule.

ercise their depleting power. The macules disappear spontaneously and seem to occasion no subjective symptoms whatever in the patient beyond more or less fright at their apparently sudden appearance.

The pediculus or phthirius pubis*, or as it is commonly known, the "crab-louse," is of a light grayish color, almost translucent at times. Size of the pediculi vary from $\frac{1}{16}$ " to $1\frac{1}{16}$ ". The thorax is almost imperceptible, the form depending more upon that of the abdomen, which has been very aptly denominated shield-shaped. It is provided with small eyes which show up quite distinctly (See Plates XLVIII and XLIX). The antennæ are rather long and five-jointed. There exist six four-jointed legs, the two last of which are provided with large, strong claws bearing a close resemblance to those of the lobster. These claws are so muscular, that in efforts to dislodge the parasite from a hair the hair itself is frequently pulled out. In addition to the legs which have been described, there exist eight teat-like projections in the sides of the abdomen, these being prehensile feet provided each with four to ten hairs. The female, as is usual in this family of parasites, has a notch at the extremity of the abdomen. Reproduction is very rapid, the ova being hatched out in six to eight days. The ova are goblet-shaped and so strongly attached to the hairs, that after hatching the shells will remain in situ. These are more or less translucent and exist along the shaft of the hair in varying numbers. The difficulty of dislodging them is frequently a cause of relapses so frequently seen in the affection. The grown specimens are unusually voracious in their habits and endowed with more than ordinary vitality. They lie flat against the skin with great tenacity, by means of the four pairs of short feet with which they are provided, and being very pale in color they frequently escape detection and must be literally scraped off in order to be distinctly seen. When in search of food they range about, most generally through the medium of hairs, although the clothing also acts as a carrier and transports them quite some distance from their original habitat. Occasionally ova are directly transplanted to new quarters by means of the finger-nails.

The treatment of pediculosis pubis is not always as easy as some would have us fondly imagine. When the trouble is confined to the pubic region it is not difficult to obtain a successful result; but when it has been disseminated over broad areas it re-

* Among the names applied to this parasite may be mentioned phthirius inguinalis, phthirius pubis, and morpilio.



Pediculus Pubis, emerging from Ovum.



quires care and attention to completely eradicate the little pests. The best method of treating the condition when it affects the eye-brows and eyelashes is to remove the pediculi and their ova with fine forceps. It is not a difficult thing to do and is always radical in its results.

As they are never present in great numbers, very little time is required, and all that is necessary may be done in one short sitting. So far as other parts of the body are concerned, any one of a number of methods may be successfully employed. A method which is very popular, but which is not only filthy, but very frequently liable to bring on untoward effects, is the use of mercurial ointment. Other ointments are equally disagreeable to use, and should be discarded in view of the fact that more cleanly and agreeable methods are always at hand. Lotions are certainly more desirable, but thoroughness should be observed in their use, not only for each application, but for the length of time they are applied. They should be used twice a day for not less than eight days, as this will insure the destruction of whatever parasites which may have been hatched out during the interval, and will furthermore prevent the breeding of a new generation. An easily procurable lotion is a six per cent. aqueous solution of carbolic acid. One which is of value when no excoriations exist, is composed as follows:

℞	Hydrarg. bichlorid	.....	gr. iv.
	Aceti aromatic	.....	℥vj.
M.			

When excoriations or other secondary lesions exist, however, it has been my custom to employ campho-phenique, as it is not only an efficient parasiticide, but it also acts beneficially as an antiseptic, procuring a rapid resolution of the artificial inflammatory process, and is unaccompanied by any danger of producing toxic symptoms. Moreover, it acts as an antipruritic, and thus fulfills the requirements of an ideal remedy in this condition.

PULEX IRRITANS.

The cutaneous trouble occasioned by the *pulex irritans*, or common flea, is one which frequently gives rise to groundless fears and alarms. The lesions which appear as results of the bites of this parasite are erythematous in character, a number of them appearing like roseola and liable to be mistaken for measles. The lesions may be discrete and few in number, or there may be many of them distributed over comparatively a large area of the integument. At the time the flea bites there is a sharp stinging sensation, which gives way in a comparatively short space of time to burning and itching of a rather severe character. If the lesions be numerous, these subjective sensations are intensified in character, and the efforts made to subdue them will result in secondary lesions. The diagnosis is not a difficult one to make if the lesions be closely examined. No matter what secondary lesions are present, the primary macules will always exist here and there. Each one of these has a central punctum which is minute in size and darker in color, besides being generally elevated above the general surface of the macule. It is due to a hemorrhage and the small clot of blood can be distinctly made out with the help of a magnifying glass, and can be even removed with the point of a needle. This will serve to distinguish the eruption from the different forms of roseola. Whilst fleas are not essentially human parasites, they seem to have a fondness to adopt the human body for a host, and although not frequently seen in this country they are common enough in the rural districts of Europe, where dogs, cats, and human beings herd together in small, close, filthy quarters.

The *pulex irritans* is quite familiar to all who have ever owned cats or dogs. It possesses a large abdomen, small thorax and roundish head provided with small eyes (See Plate XLIX). It is a light brown in color when mounted, but as found when



Cimex Lectularius.



Chicken Louse.

living it is of a marked dark brown and very glossy in appearance. It varies in length from $\frac{1}{4}$ " to $1\frac{1}{2}$ ". It has well marked five-jointed antennæ, and is provided with six legs. These latter organs are peculiar in that they are three-jointed, the last joint, however, being terminated by a toe which has five joints and which itself terminates in two claws. This last toe and joint are well provided with bristles, located on the posterior surface. The last pair of legs are much longer and stronger than the two anterior pairs and they are very powerful and muscular, thus enabling the animal to leap and project itself through comparatively long distances. Again, we find that the three pairs of legs are much crowded anteriorly, but folding in such a manner that when the flea is at rest the abdomen is apparently held midway. The animal is quick of movement, not only when it is hopping, but also when it is running, which it does upon the slightest indication of danger or disturbance. Its favorite roaming ground is close to the skin, in animals, where it is buried in the thick growth of fine hair. Here it is that it performs its depredations, preferring those regions where the skin is thin, such as the flexures of the joints. When it attacks the human it generally seeks those regions which are covered by clothing and warm, and never attacks the scalp. The neck is frequently sought by them, in men, perhaps on account of the attraction furnished by the white color of the collar. The *pulex irritans* breeds very rapidly, and, so far as I have been able to determine, it deposits its eggs on the skin and they hatch out in about a week.

The treatment of flea-bites is perhaps not so important as the adoption of prophylactic measures. For the former a number of adequate applications may be used, and one of the best perhaps is an aqueous solution of some antipruritic, such as the sol. antiprurit. co. This should be applied several times in the day and a quick recovery will result. But it will scarcely prove efficient unless the skin is freed from the little pest which causes the trouble. To accomplish this the clothing should be carefully removed and exposed to the air, and a carefulness exercised that the fleas will not leap into other articles of clothing. If there be pets about the house see to it that the cats and dogs are freed from parasites, and if they have been acquired from strange animals, avoid them in the future. To keep animals free from fleas is a most difficult matter, but the parasites may be killed by rubbing in well some pyrethrum powder, which destroys them and is not noxious to the host. Bathing dogs with carbolic soap will rid them of fleas if care be taken to submerge them completely so that the parasites will be carried off in the

water. But I do not desire to enter into the subject beyond calling attention to the fact that many cases of flea-bites occur in patients in which the diagnosis must be made from the lesions, as the parasite has long since betaken itself to new fields and cannot be found. It is for this reason that great care should be taken not to mistake flea-bites for exanthematous troubles, and vice versa.

CIMEX LECTULARIUS.

The cimex lectularius or "bed bug" is almost universally disseminated, and occasions lesions which give rise to considerable alarm, and which are frequently wrongly interpreted, this being one of their peculiarities. The parasite occasions much discomfort by its bite, and it requires a certain amount of attention to make a proper discrimination. The most severe lesions are found in those who have the most tender skins, and the subjective symptoms also vary in proportion to this factor. In infants and children, more especially, the lesions are apt to take on an inflammatory appearance, whereas in adults who have particularly resisting integuments scarcely any perceptible objective symptom is to be seen. On the other hand, those whose skins are most susceptible are conscious of a sharp pain with a slight dull aching sensation following, the pruritus not being so severe as those whose epidermis is thick, and in whom the itching occasioned by the bite of the parasite is intolerable. The particular lesion caused is a small circumscribed edema with a minute central punctum, which is hemorrhagic. The lesions are of the size of the small finger-nail or even smaller, and resemble the wheals of urticaria with the exception of the outer erythematous zone. In the bite of the bedbug they are white, and furthermore are more persistent. In any case, the pruritus excited leads to the formation of secondary lesions brought on by the scratching. Any portion of the body may be the seat of the eruption, although as a general rule, the hands, wrists, feet, ankles and face are those most frequently involved, as they are the most accessible localities. It is no uncommon thing to be awakened out of a sound sleep by a pruritus of such an intense nature as to deprive the subject of rest, and a close inspection will reveal a cimex as the cause of the trouble. The constant subjection to the irritation nightly is very apt to bring on a train

of nervous symptoms, and reflex excitability which may be incorrectly interpreted unless the true cause be discovered.

The *cimex lectularius*, *acanthia lectularia*, or common bed-bug, is probably one of the best known animal parasites which attacks the human being. Its geographical distribution is almost universal, the varieties found in the tropics being much larger than those encountered in temperate zones. When fasting the *cimex* is flat, of a yellowish-red color, and varying in length from 1" to 2". When glutted with blood it has a distinct red color, and is appreciably enlarged by the blood which it contains. It is unusually tenacious of life, being able to exist for protracted periods of time without food. When it has an opportunity, however, it is gluttonous. It has a penetrating odor, disagreeable in the extreme, although compared to cinnamon by some. The parasite has a large abdomen, a small thorax and a diamond-shaped head, the eyes being fairly large and prominent; two antennæ, which are four-jointed and very mobile, project anteriorly (See Plate L). There exist three pairs of legs, three-jointed in character, and terminating in a single claw. The body is provided with a number of bristles, none, however, being perceptible on the legs. The female proliferates not only frequently, but large broods are the result. The young, as soon as hatched, begin their depredations, and as they are often not larger than a very small pin's head, they frequently escape detection, although the odor reveals their presence. The habitat of the bedbug is in the cracks of the wood of bedsteads, in the bed-clothes, under wall paper, in old books, in fact, wherever a small chink or crack can afford them a hiding place. They are not infrequently found in the clothing, having wandered there from the cracks of clothes-presses or wardrobes. As a rule, the bedbug attacks his host when the latter is asleep, and the attacks of the parasite are always fierce. The irritation produced is not only caused by the direct wound inflicted, but by the injection of an acid fluid which is intended to prevent the coagulation of the blood as it is drawn. It is for this reason that micro-organisms are apt to be injected by the parasite into lymphatic spaces, and thus infection be produced without any very clear cause for it.

The treatment for the cutaneous trouble caused by the *cimex* is usually a simple one so far as allaying the symptoms is concerned. Dilute alkalies, vinegar, alcohol, whisky, etc., are the more commonly recognized domestic remedies. It is best, however, to use a dilute solution of bichloride of mercury, as it will not only cause the disappearance of the symptoms, but will act as an antiseptic, and prevent any possible phlegmonous compli-

cations. Campho-phenique will do the same thing, and possesses an added advantage in being an anesthetic. Treatment may be deemed superfluous when one or two small lesions exist, but when an infant is affected from head to foot it becomes a matter of some moment, as the result of such an extensive cutaneous irritation may take on a serious character. It is also for this reason that care should be exercised not to mistake the trouble for irritation or some exanthem. The principal thing to do, however, is to get rid of the "bugs." This is not such an easy matter as it might seem, as every housekeeper will testify to. To rid furniture of bedbugs is possibly yet a problem, for the females deposit their ova in minute cracks which are difficult to reach with parasitocides. Mercurial preparations are probably the best for this purpose, and yet they are fraught with some danger to those sleeping in the bed so treated. Moreover, whilst the bedstead may be clean, the seams of the mattresses will be found teeming with these pests, and a thorough and careful search for, and destruction of them, seems to be an almost hopeless and interminable piece of work. The only thorough method, perhaps, is to have everything new, and to live in quarters free of the cimex.

DERMANYSSUS AVIUM.

The eruption caused by this parasite is rarely, if ever, seen in cities, although it is not of unusual occurrence in the country. It produces an eruption most often upon the dorsum of the hands, about the wrists and forearms, although other portions of the body are liable to be attacked. The attack generally begins with itching, which is soon followed by an eruption more or less diffused, and which may be erythematous and papular, or mixed, vesicles and wheals making their appearance. It is seen in those who come in contact with domestic fowls, and the parasite is ordinarily derived from the chicken-house. The trouble is often very annoying, and aggravation is by no means uncommon from repeated exposure to the cause. Women and children suffer more severely from this cause than men on account of the greater delicacy of their skin. The peculiar localization of the eruption, together with its strict limitation, should immediately arouse suspicion, more especially when observed in those whose duties cause them to visit chicken-houses or aviaries.

The *dermanyssus avium*, or chicken louse, as it is more commonly known, is a familiar parasite to those who raise chickens, and it is an enemy whose destruction is constantly sought on account of its fatal effects on poultry. It is about 1^{mm} long and perhaps one-third as broad. It is rather pale in color. Its abdomen is quite long in proportion to the entire body and its head is somewhat mushroom-shaped and provided with two rather small but distinct eyes (See Plate L). It has no antennæ, but is provided with powerful mandibles. It has three pairs of three-jointed legs which, like the body, are not provided with bristles. This parasite is very prolific and voracious, attacking not only common fowl but pigeons and other domesticated birds, and extending its depredations even to quadrupeds. It is chiefly found in the woodwork of houses, whence it issues at night to feast upon

the sleeping fowl. A number, however, will remain on their host, and it is chiefly in the flexures of the joints and upon the neck that they are to be found. Young birds will not infrequently die of the exhaustion induced from the drain of blood, and the older ones become emaciated.

The treatment of the eruption caused by the chicken louse is a very simple one, consisting of the application of a three per cent. solution of carbolic acid, which rapidly allays all the symptoms. To prevent recurrences the infested chickens and their quarters should be avoided. If this avoidance cannot be effected, attention should then be turned to the fowl and their habitation. For the former the use of carbolized oil, pyrethrum powder or dilute oil of orris will effectually rid them of the parasites. The building in which they are kept can be rid of the parasites by washing with a solution of some strong alkali, such as common lye, and it is better, after this has been done, to thoroughly whitewash the structure within and without, having previously isolated the fowl and destroyed their parasites. Occasionally in the human the parasite will be found upon the skin, but it does not seem to thrive upon the integument of man and it quickly disappears.

IXODES AMERICANUS.

The lesions occasioned by this parasite are of the most acute character and may result quite seriously. The subjective sensations are of a painful, burning nature, whilst the lesions are of an inflammatory character. When observed it will seem as if the parasite is imbedded in the skin, and surrounding the part in which it is buried there is a bright red areola with occasionally a small wheal. If the parasite is torn away a portion remains behind and a slight phlegmonous process results, generally leading to suppuration and final resolution. The genital regions seem to be particularly affected, although the lower limbs are also attacked to quite a considerable degree. The trunk and upper extremities are also subject to the depredations of this troublesome parasite. Males are more subject than females on account of their outdoor life and occupations.

The *Ixodes Americanus* (*Amblyoma Americanum*) or wood-tick, as it is ordinarily known, is about the size of the *Cimex lectularius* and has the same general form. It is red in color and has a rather small head and distinct, small eyes. The variety most commonly encountered has a white spot situated about the center of the back. It is provided with three pairs of three-jointed legs

provided with a single claw. The most prominent feature is the powerful suction apparatus which it possesses. This consists of three divergent, sharp, trunks, which are brought close together, driven into the skin, and then separated, thus giving a hold which will not relax. The efforts made to remove the tick result in tearing off the body, and thus leaving the embedded portion to act as a foreign body on the skin. The tick does not limit its depredations to the human being, but attacks all quadrupeds upon whom it can secure a hold. It seems to be most plentiful in dead leaves, rotten wood, and vegetable matter undergoing dry decay. It is quite prolific, and individuals travel together in great numbers, so that it is not rare for several hundred to fasten themselves upon one host. So far as the treatment of the condition caused by this parasite is concerned, it is a very simple matter. To get rid of the parasites it is merely necessary to apply olive oil liberally wherever they are to be found. The action of the oil is two-fold—it causes the ticks to fall out and acts as a soothing remedy to the wounds they have produced. If they have already been torn off, a mixture of equal parts of olive oil and campho-phenique will act very satisfactorily, so will carbolized oil of a strength of about two per cent. As regards prophylaxis, it is well nigh impossible to attain. Oil of pennyroyal and other essential oils will not prevent ticks from attacking the skin. It may keep off a certain number, but individuals are so voracious that after a tramp through the woods they will be found and their locality will not be difficult to establish. The only prophylactic that is certain is to avoid the localities where they hold forth.

LEPTUS.

There are two species of the animal parasite. We have the *leptus Americanus*, or American harvest mite, which is quite common in this country. It attacks the integument of those only in whom it is tender, and for this reason women and children suffer most from its depredations. It attacks principally the scalp and axillæ, although other parts of the body may suffer.

The other species, the *leptus irritans*, ordinarily known as the mower's mite, is much more difficult to get rid of, for it attacks the ankles and legs, and buries itself deep in the integument, causing a polymorphous dermatitis. The *leptus Americanus*, on the other hand, merely insinuates the anterior portion of its body in the integument, after the fashion of the ixodes, and does not cause such serious symptoms. The same treatment as that for ixodes is indicated.

CULEX PIPIENS.

The *Culex pipiens*, or mosquito, is a common parasite in tropical and sub-tropical countries, as well as in the temperate zones. It produces lesions which have a certain degree of importance on account of the errors to which they may lead. The insect, in its attempt to suck the blood of its host, produces minute erythematous macules of a bright red hue. Pain is at first felt and then a marked itching sets in. The exposed portions of the integument are affected, although there are some mosquitos which are able to penetrate ordinary under-garments. When infants are covered with mosquito bites the trouble may lead to a suspicion of measles. A careful search for the central hemorrhagic punctum of each lesion will readily disclose the true cause. Alkalies, especially dilute ammonia, relieves the trouble promptly. It may not be uninteresting to note that the mosquito has been accused of disseminating yellow fever.

PULEX PENETRANS.

This animal is also known as the nigua, chigoe, chigger, jigger, rhynchoprion penetrans and other local names. It occurs in the tropics, where it is called the sand-flea, on account of its resemblance to the ordinary pulex. It produces marked inflammatory changes culminating in abscesses, in many cases, whereas in others ulcers take place. The female, when about to lay her eggs, digs her proboscis in the skin, preferring that part under or near the toe-nails. The arms, scrotum, toes and feet are also parts which may suffer. The female is usually not content with the insertion of the long proboscis, but also buries its head. The only method of treating the condition properly is to dig out the head with a blunt needle before any marked inflammatory symptoms declare themselves, and dress the part with some antiseptic oil. If ulcers, abscesses or gangrene have developed surgical measures should be adopted.

FILARIA MEDINENSIS.

Syn.—*Dracunculus Medinensis*, Guinea Worm, Dracontiasis.

This is a nematode worm which is only found in tropical countries. It obtains entrance into the body in drinking water, and it soon begins its migrations. It gives rise to no particular symptoms until it is near the surface of the body. Then some pain and itching are experienced. The first manifestation of its presence is simultaneous with the subjective symptoms. A slight

elevation may be felt and it gives the sensation of a roll or bundle of string. After this a vesicle appears of the size of a pin's head, which may become as large as a bean. This bursts and the head of the worm can be seen. This parasite is about a half line in diameter and of variable length, up to three feet or more. A favorite locality for it to show itself is the ankle. Usually there is but one. Much care must be taken to extract it. It should be seized by the head and gently drawn out. The portion so drawn is rolled around a stick or roll of adhesive plaster, and a little more is rolled on this day by day until the entire worm has been taken out. *Assafetida* is highly lauded in this trouble.

ÆSTRUS.

Syn.—Gadbreeze, Bot-Fly.

In this species the larvæ is the part which produces all the trouble. It is principally in Central and South America that cases are observed. The larvæ are deposited in the integument, and work their way in a more or less direct line, which suggests lymphangitis, but differs from it in being purplish in color. More or less pain is produced during the process. After a certain length of time suppuration of the skin takes place at a point—the distal one of the track—and the larvæ emerge. The treatment is to inject carbolic acid in the sinus produced.

DEMODEX FOLLICULORUM.

Syn.—*Steatozoon*, *Entozoon*, or *Eimonea Folliculorum*, *Acarus Folliculorum*.



Fig. 33.—*Demodex Folliculorum*.

This acarus is a very common one found in sebaceous glands, and in man it is entirely innocuous, although in the dog it produces very serious general disturbance. There is no doubt that it is derived from the external world, as the head is always pointing inwardly, and, as a rule, a number is found, head down, in the sebaceous follicles. It is microscopic in size and worm-like in appearance. The head has strong mandibles, the thorax is provided with four pairs of three-jointed legs. The thorax is short and the abdomen long. It is lively of movement when first expressed from a sebaceous gland. It occurs chiefly in the sebaceous glands of the face, about the nose and ears and in the upper part of the chest and back.

CYSTICIRCUS CELLULOSÆ CUTIS.

This is probably one of the most difficult affections to determine, as it closely resembles various other affections of the skin. It is really small subcutaneous hydatid cysts which occasion no pain, inflammation or other reaction, the cysticircus being encapsulated. The appearance presented is that of more or less elastic small nodules which, in the course of two or three years, may become indurated owing to the death and subsequent death and calcification of the cysticircus. This trouble invariably occurs in those who have eaten the eggs of the *tenia solium* in their food.

FORMULARY.

MIXTURES.

Duhring's Acid Aperient Mixture.

℞	Magnesiæ sulphatis.....	5jss.
	Ferri sulphatis.....	gr. xvj.
	Acidi sulphurici dil.....	5ij.
	Aquæ.....	5viij.

M. Sig. Tablespoonful in water before breakfast.

Arsenical Mixture.

℞	Liquor potassæ arsenitis.....	5ij.
	Vini ferri.....	5j.
	Aquæ destillat.....	q. s. ad., 5iv.

M. Sig. Teaspoonful in water after each meal.

Liquor Acidi Arseniosi Hydrochlorici (De Valangin's).

℞	Acidi Arseniosi.....	5ss.
	Acidi hydrochlorici.....	5jss.
	Aquæ destillat.....	5xx.

M.

PILLS.

Asiatic Pill.

℞	Acidi arseniosi.....	gr. ij.
	Piperis nigris.....	ʒij.
	Pulv. glycerrhiz. rad.....	5j.

M. ft. pil. no. 40,

Pil. Hepatic Co. (O-D).

℞	Hydrarg. chlorid, mit.,	
	Pulv. podophyllin.....	aa, gr. ij.
	Pulv. ipecac.....	gr. j.
	Ext. colocynth. co.....	gr. xij.
	Ext. nucis vomic.....	gr. iv.
	Ext. belladonnæ.....	gr. ij.
	Ol. anisi.....	gtt. j.

M. ft. pil. no. 8. Sig. One pill at bedtime.

LOTIONS.

Tincture of Green Soap.

℞ Sapo. viridis	℥viij.
Alcoholis	℥iv.
Solve et filtra. Sig. Use diluted.	

Liquor Picis Kalinus.

℞ Picis liquidæ	℥ij.
Potassæ causticæ	℥j.
Aquæ.....	℥v.
M. Sig. Use diluted.	

Compound Tincture of Green Soap.

℞ Olei cadini,	
Saponis viridis,	
Spts. vini rectificat.	aa, ℥j.
M. filtra et adde,	
Spts. lavandulæ.	℥ij.
M.	

Bulkley's Sulphur Lotion.

℞ Sulphuris loti	℥j.
Etheris	℥vj.
Alcoholis	℥iiijss.
M.	

Calamine Lotion.

℞ Pulv. calaminæ	℥ij.
Zinci oxidi	℥ss.
Glycerini.	m. xv.
Aquæ rosæ	℥j.
M.	

Vlemingx's Solution.

℞ Calcis vivæ	℥iv
Sulphur. sublimat	℥j.
Aquæ destillat	℥x.
M. Coque ad. ℥vj et filtra.	

Sol. Antiprur. Co. (O-D).

℞ Hydrarg. bichloridi	gr. ij.
Ammon. muriat	gr. iv.
Acidi carbolic	℥ij.
Glycerini	℥ij.
Aquæ rosæ	q. s. ad., ℥vj.
M.	

Lotio Sulphuris Co.

℞ Sulphuris precipit.	℥j.
Etheris fort.	℥iv.
Alcohol dil	℥iijss.
M. fiat lotio.	

Spiritus Capillaris (Unna).

℞ Resorcini	℥j.
Alcoholis 95°	℥xxx.
Spts. coloniensis.	℥xx.
Olei ricini	℥ss.
M.	

OINTMENTS.**Hebra's Diachylon Ointment.**

℞ Olei olivar. opt	℥xv.
Lithargyri	℥iij-℥vi.
Aquæ	q. s.
Coque et fiat unguentum secundem artem.	

Wilkinson's Ointment (Hebra).

℞ Sulphuris loti,	
Olei cadini	aa, ℥iv.
Saponis viridis,	
Adipis	aa, ℥j.
Cretæ preparatæ	℥iijss.
M.	

Helmerich's Ointment.

℞ Sulphuris	℥ij.
Potass. carb	℥j.
Adipis	℥viij.
M.	

Unguentum Lanolini Co. (O-D).

℞ Lanolini puriss,	
Ung. aquæ rosæ	℥j.
M.	

Unguentum Chrysarobini Co. (Unna).

℞ Chrysarobini,	
Acidi salicylic	aa, gr. viij.
Ichthyol	℥ij.
Vaselini flavi	℥vj.
M.	

Brooke's Lupus Ointment.

℞ Hydrargyri oleat., 5 per cent	3j.
Acid. salicylic	gr. x-xv.
Ichthyol	m. xv.
Olei lavandulæ	q. s.
M. et fiat ung.	

PLASTERS, PASTES, ETC.**Unna's Comedo Paste.**

℞ Acidi acetici dil.	3j.
Glycerini puriss	3ij.
Kaolini	3iij.
M. Sig. Apply at night.	

Bulkley's Adhesive Sticks.

℞ Ceræ flavæ	3iij.
Laccæ in tubulis	3ss.
Resinæ	5vj.
Picis Burgundicæ	5xj.
Gummi dammar	3jss.
M.	

Cosme's Paste.

℞ Acidi arseniosi	gr. x.
Hydrarg. sulphuret. rubr	3ss.
Ung. aquæ rosæ	3ss.
M.	

Vienna Paste.

℞ Calcis vivæ,	
Potassæ	aa, p. æ.
M. Sig. Make into a paste just before using.	

Lassar's Paste.

℞ Zinci oxidi,	
Amyli	aa, 5ij.
Adipis	5iv.
M.	

Zeissl's Sulphur Paste.

℞ Sulphuris precipit.,	
Glycerini,	
Potassii carbonat.,	
Alcoholis dilut	aa, 3j.
M. ft. pasta.	

Compound Salicylic Plaster. (Klotz).

- ℞ Emplast. diachyli simp.,
 Emplast. saponat aa, ʒj.
 Petrolati..... ʒiij.
 Acidi salicylic ʒj.
 M. ft. emplastrum.

Hebra's Paste.

- ℞ Glycerini,
 Acid. carbolic.,
 Lac. sulphuris,
 Spts. vini rectific... aa, ʒij.
 M. ft. pasta.

Bougard's Paste.

- ℞ Wheat flour,
 Starch..... aa, ʒij.
 Arsenic..... gr. ij.
 Cinnabar,
 Sal ammoniac aa, gr. x.
 Corrosive sublimate ... gr. j.
 Sol. chloride of zinc at 52° ʒj.
 Mix.

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ATLASES.

- | | | |
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Giornale delle Malattie della Pelle.

The above list could be greatly extended, but it is sufficiently large, especially for those whose reading is limited to but a portion of the literature of dermatology.

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